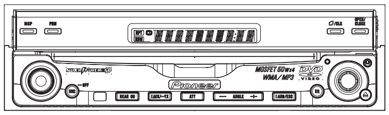
Pioneer sound.vision.soul

Service Manual


AVH-P6600DVD/UC

ORDER NO.
CRT3193

AV RECEIVER/DVD PLAYER WITH 6.5 INCH WIDE DISPLAY

AVH-P6600DVD/UC
AVH-P6600DVD/EW
AVH-P6650DVD/RC
AVH-P6650DVD/RD

This service manual should be used together with the following manual(s):

Model No.	Order No.	Mech.Module	Remarks
CX-3078	CRT3257	MS-3V1	DVD Mech. Module:Circuit Description, Mech. Description, Disassembly

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For details, refer to "Important symbols for good services".

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SAFETY INFORMATION

UC

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org.

EW

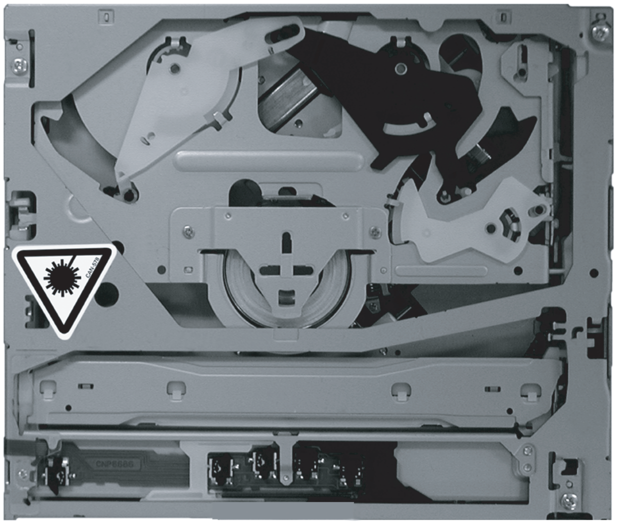
1. Safety Precautions for those who Service this Unit.

- **Follow the adjustment steps (see pages 143 through 156)in the service manual when servicing this unit. When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.**

Caution:

1. **During repair or tests, minimum distance of 13cm from the focus lens must be kept.**
2. **During repair or tests, do not view laser beam for 10 seconds or longer.**

2. The triangular label is attached to the mechanism unit frame.

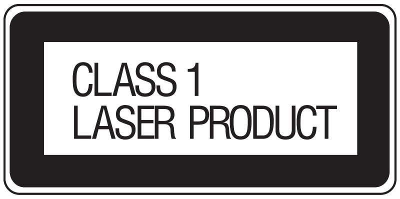


CAUTION

This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.
Refer all servicing to qualified personnel.

The following caution label appears on your unit.

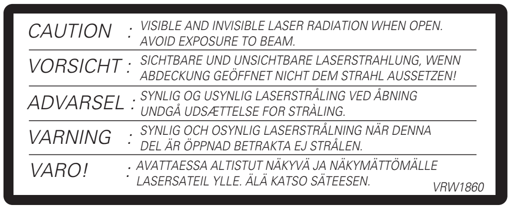
Location: on the bottom of the unit



CLASS 1
LASER PRODUCT

En

On the top of the player.



CAUTION :	VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
VORSICHT :	SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN!
ADVARSEL :	SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING UNDGÅ UDSÆTTELSE FOR STRÀLING.
VARNING :	SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRAKTA EJ STRÅLEN.
VARO! :	AVATTAESSA ALTISTUT NÄKYVÄ JA NÄKYMÄTTÖMÄLLE LASERSATEIL YLLE. ÄLÄ KATSO SÄTEESEN.

VRW1860

WARNING!

The AEL (accessible emission level)of the laser power output is less than CLASS 1 but the laser component is capable of emitting radiation exceeding the limit for CLASS 1.
A specially instructed person should do servicing operation of the apparatus.

Laser diode characteristics

Wave length:
DVD:640~660nm
CD:770~810nm
DVD : 2.48mw(Emitting period :9sec.)
CD : 705µw(Emitting period : unlimited)

Additionla Laser Caution

Transistors Q1101 and Q1102 in PCB drive the laser diodes for DVD and CD respectively. When Q1101 or Q1102 is shorted between their terminals, the laser diodes for DVD or CD will radiate beam. If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replaced only with the same or equivalent type recommended by the manufacture.
Discord used batteries according to the manufacture's instructions.

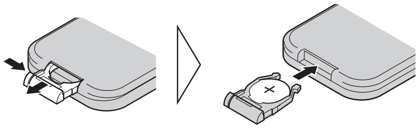
RC,RD

Battery

Slide the tray out on the back of the remote controller and insert the battery with the (+) and (–) poles pointing in the proper direction.

Note :

- Use a CR2025 (3V) lithium battery only. Never use other types of battery with this unit.



CAUTION

Danger of explosion if battery is incorrectly replaced.
Replaced only with the same or equivalent type.

NOTE: ❗

- **Inverter for LCD back light becomes a high voltage.**
- **Method of FAN Operation Confirmation**

1. In the state of FAN being attached to the mother unit, the voltage of about 6 to 8 V is impressed between TEST point (FAN1) on surface A of the base plate and adequate GND to confirm its operation by visual observation.

2. After product assembly, a waveform observation is conducted using oscilloscope while playing DVD on TEST point (TEST1) in front of chassis hole on lower face and adequate GND to confirm the existence of operation noise (pulse) shape.

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

DVD AUDIO DVD AUDIO™ DVD VIDEO DVD VIDEO™

COMPACT disc DIGITAL VIDEO COMPACT disc DIGITAL AUDIO COMPACT disc DIGITAL AUDIO TEXT dts® DIGITAL OUT

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1. SPECIFICATIONS

● AVH-P6600DVD/UC

General

Power source	14.4 V DC (10.8 – 15.1 V allowable)
Grounding system	Negative type
Head unit:	
Max. current consumption	10.0 A
Backup current	5 mA or less
Dimensions (W × H × D):	
DIN	
Chassis	178 × 50 × 160 mm (7 × 2 × 6-1/4 in.)
Nose	188 × 58 × 36 mm (7-3/8 × 2-1/4 × 1-3/8 in.)
D	
Chassis	178 × 50 × 165 mm (7 × 2 × 6-1/2 in.)
Nose	170 × 46 × 31 mm (6-3/4 × 1-3/4 × 1-1/4 in.)
Weight	2.3 kg (4.8 lbs)
Hideaway unit:	
Max. current consumption	1.0 A
Dimensions (W × H × D)	150 × 28 × 100 mm (5-7/8 × 1-1/8 × 3-7/8 in.)
Weight	0.4 kg (0.7 lbs)

Display

Screen size/aspect ratio	6.5 inch wide/16:9 (effective display area: 144 × 77 mm)
Pixels	336,960 (1,440 × 234)
Type	TFT active matrix, transmissive type
Color system	NTSC compatible
Operating temperature range	+14 – +122 °F
Storage temperature range	-4 – +176 °F
Angle adjustment	50 – 110° (initial settings: 110°)

Audio

Continuous power output is 22 W per channel minimum into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.

Maximum power output	50 W × 4 50 W × 2/4 Ω + 70 W × 1/2 Ω (for subwoofer)
Load impedance	4 Ω (4 – 8 Ω [2 Ω for 1 ch] allowable)
Preout max output level/output impedance	4.0 V/100 Ω
Equalizer (3-Band Parametric Equalizer):	
Low	
Frequency	40/80/100/160 Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	±12dB
Mid	
Frequency	200/500/1k/2k Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	±12dB
High	
Frequency	3.15k/8k/10k/12.5k Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	±12dB
Loudness contour	
Low	+3.5 dB (100 Hz), +3 dB (10 kHz)
Mid	+10 dB (100 Hz), +6.5 dB (10 kHz)
High	+11 dB (100 Hz), +11 dB (10 kHz) (volume: –30 dB)
Tone controls:	
Bass	
Frequency	40/63/100/160 Hz
Gain	±12dB
Treble	
Frequency	2.5k/4k/6.3k/10k Hz
Gain	±12dB
HPF:	
Frequency	50/80/125 Hz
Slope	–12 dB/oct
Subwoofer:	
Frequency	50/80/125 Hz
Slope	–18 dB/oct
Gain	±12dB
Phase	Normal/Reverse

DVD Player

System	DVD video, Video CD, Compact disc audio system
Usable discs	DVD video, Video CD, Compact disc
Region number	1
Signal format:	
Sampling frequency	44.1/48/96 kHz

Number of quantization bits	16/20/24; linear
Frequency response	5 – 44,000 Hz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio	97 dB (1 kHz) (IHF-A network) (CD: 96 dB (1 kHz) (IHF-A network))
Dynamic range	95 dB (1 kHz) (CD: 94 dB (1 kHz))
Distortion	0.008 % (1 kHz)
Output level:	
Video	1.0 Vp-p/75 Ω (±0.2 V)
Audio	1.0 V (1 kHz, 0 dB)
Number of channels	2 (stereo)
MP3 decoding format	MPEG-1 & 2 Audio Layer 3
WMA decoding format	Ver. 7 & 8

FM tuner

Frequency range	87.9 – 107.9 MHz
Usable sensitivity	8 dBf (0.7 µV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	10 dBf (0.9 µV/75 Ω, mono)
Signal-to-noise ratio	75 dB (IHF-A network)
Distortion	0.3 % (at 65 dBf, 1 kHz, stereo) 0.1 % (at 65 dBf, 1 kHz, mono)
Frequency response	30 – 15,000 Hz (±3 dB)
Stereo separation	45 dB (at 65 dBf, 1 kHz)
Selectivity	80 dB (±200 kHz)
Three-signal intermodulation (desired signal level)	30 dBf (two undesired signal level: 100 dBf)

AM tuner

Frequency range	530 – 1,710 kHz (10 kHz)
Usable sensitivity	18 µV (S/N: 20 dB)
Signal-to-noise ratio	65 dB (IHF-A network)

Note

Specifications and the design are subject to possible modifications without notice due to improvements. ■

● AVH-P6600DVD/EW

General

Rated power source	14.4 V DC (allowable voltage range: 12.0 – 14.4 V DC)
Grounding system	Negative type
Head unit:	
Max. current consumption	10.0 A
Backup current	5mA or less
Dimensions (W × H × D):	
DIN	
Chassis	178 × 50 × 160 mm
Nose	188 × 58 × 36 mm
D	
Chassis	178 × 50 × 165 mm
Nose	170 × 46 × 31 mm
Weight	2.3 kg
Hideaway unit:	
Max. current consumption	1.0 A
Dimensions (W × H × D)	150 × 28 × 100 mm
Weight	0.4 kg

Display

Screen size/aspect ratio	6.5 inch wide/16:9 (effective display area: 144 × 77 mm)
Pixels	336,960 (1,440 × 234)
Type	TFT active matrix, transmissive type
Color system	NTSC/PAL compatible
Operating temperature range	–10 – +50 °C
Storage temperature range	–20 – +80 °C
Angle adjustment	50 – 110° (initial settings: 110°)

Audio

Maximum power output	50 W × 4 50 W × 2/4 Ω + 70 W × 1/2 Ω (for subwoofer)
Continuous power output	27 W × 4 (DIN 45324, +B=14.4 V)
Load impedance	4 Ω (4 – 8 Ω [2 Ω for 1 ch] allowable)
Preout max output level/output impedance	4.0 V/100 Ω
Equalizer (3-Band Parametric Equalizer):	
Low	
Frequency	40/80/100/160 Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	±12dB
Mid	
Frequency	200/500/1k/2k Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	±12dB
High	
Frequency	3.15k/8k/10k/12.5k Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	±12dB
Loudness contour	
Low	+3.5 dB (100 Hz), +3 dB (10 kHz)
Mid	+10 dB (100 Hz), +6.5 dB (10 kHz)
High	+11 dB (100 Hz), +11 dB (10 kHz) (volume: –30 dB)
Tone controls:	
Bass	
Frequency	40/63/100/160 Hz
Gain	±12dB
Treble	
Frequency	2.5k/4k/6.3k/10k Hz
Gain	±12dB
HPF:	
Frequency	50/80/125 Hz
Slope	–12 dB/oct
Subwoofer:	
Frequency	50/80/125 Hz
Slope	–18 dB/oct
Gain	±12dB
Phase	Normal/Reverse

DVD Player

System	DVD video, Video CD, Compact disc audio system
Usable discs	DVD video, Video CD, Compact disc
Region number	2
Signal format:	
Sampling frequency	44.1/48/96 kHz
Number of quantization bits	16/20/24; linear
Frequency response	5 – 44,000 Hz (with DVD, at sampling frequency 96 kHz)

Signal-to-noise ratio	97 dB (1 kHz) (IEC-A network) (CD: 96 dB (1 kHz) (IEC-A network))
Dynamic range	95 dB (1 kHz) (CD: 94 dB (1 kHz))
Distortion	0.008 % (1 kHz)
Output level:	
Video	1.0 Vp-p/75 Ω (±0.2 V)
Audio	1.0 V (1 kHz, 0 dB)
Number of channels	2 (stereo)
MP3 decoding format	MPEG-1 & 2 Audio Layer 3
WMA decoding format	Ver. 7 & 8

FM tuner

Frequency range	87.5 – 108.0 MHz
Usable sensitivity	8 dBf (0.7 µV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	10 dBf (0.9 µV/75 Ω, mono)
Signal-to-noise ratio	75 dB (IEC-A network)
Distortion	0.3 % (at 65 dBf, 1 kHz, stereo) 0.1 % (at 65 dBf, 1 kHz, mono)
Frequency response	30 – 15,000 Hz (±3 dB)
Stereo separation	45 dB (at 65 dBf, 1 kHz)
Selectivity	80 dB (±200 kHz)

MW tuner

Frequency range	531 – 1,602 kHz (9 kHz)
Usable sensitivity	18 µV (S/N: 20 dB)
Signal-to-noise ratio	65 dB (IEC-A network)

LW tuner

Frequency range	153 – 281 kHz
Usable sensitivity	30 µV (S/N: 20 dB)
Signal-to-noise ratio	65 dB (IEC-A network)

Note

Specifications and the design are subject to possible modifications without notice due to improvements. ■

AVH-P6650DVD/RC,RD

General

- Power source .... 14.4 V DC (10.8 – 15.1 V allowable)
- Grounding system .... Negative type
- Head unit:
  - Max. current consumption .... 10.0 A
- Backup current .... 5 mA or less
  - Dimensions (W × H × D):
    - DIN
      - Chassis .... 178 × 50 × 160 mm
      - Nose .... 188 × 58 × 36 mm
    - D
      - Chassis .... 178 × 50 × 165 mm
      - Nose .... 170 × 46 × 31 mm
  - Weight .... 2.3 kg
- Hideaway unit:
  - Max. current consumption .... 1.0 A
  - Dimensions (W × H × D) .... 150 × 28 × 100 mm
  - Weight .... 0.4 kg

Display

- Screen size/aspect ratio .... 6.5 inch wide/16:9 (effective display area: 144 × 77 mm)
- Pixels .... 336,960 (1,440 × 234)
- Type .... TFT active matrix, transmissive type
- Color system .... NTSC/PAL compatible
- Operating temperature range .... –10 – +50 °C
- Storage temperature range .... –20 – +80 °C
- Angle adjustment .... 50 – 110° (initial settings: 110°)

Audio

Continuous power output is 22 W per channel minimum into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.

- Maximum power output .... 50 W × 4
50 W × 2/4 Ω + 70 W × 1/2 Ω (for subwoofer)
- Load impedance .... 4 Ω (4 – 8 Ω [2 Ω for 1 ch] allowable)
- Preout max output level/output impedance .... 4.0 V/100 Ω
- Equalizer (3-Band Parametric Equalizer):
  - Low
    - Frequency .... 40/80/100/160 Hz
    - Q Factor .... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
    - Gain .... ±12dB
  - Mid
    - Frequency .... 200/500/1k/2k Hz
    - Q Factor .... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
    - Gain .... ±12dB
  - High
    - Frequency .... 3.15k/8k/10k/12.5k Hz
    - Q Factor .... 0.35/0.59/0.95/1.15 (+6 dB when boosted)
    - Gain .... ±12dB
- Loudness contour
  - Low .... +3.5 dB (100 Hz), +3 dB (10 kHz)
  - Mid .... +10 dB (100 Hz), +6.5 dB (10 kHz)
  - High .... +11 dB (100 Hz), +11 dB (10 kHz) (volume: –30 dB)
- Tone controls:
  - Bass
    - Frequency .... 40/63/100/160 Hz
    - Gain .... ±12dB
  - Treble
    - Frequency .... 2.5k/4k/6.3k/10k Hz
    - Gain .... ±12dB
- HPF:
  - Frequency .... 50/80/125 Hz
  - Slope .... –12 dB/oct
- Subwoofer:
  - Frequency .... 50/80/125 Hz
  - Slope .... –18 dB/oct
  - Gain .... ±12dB
  - Phase .... Normal/Reverse

DVD Player

- System .... DVD video, Video CD, Compact disc audio system
- Usable discs .... DVD video, Video CD, Compact disc
- Region number:
  - for Southeast Asian models 3
  - for South American and Oceanian models 4
- Signal format:
  - Sampling frequency .... 44.1/48/96 kHz

Number of quantization bits	16/20/24; linear
Frequency response	5 – 44,000 Hz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio	97 dB (1 kHz) (IEC-A network) (CD: 96 dB (1 kHz) (IEC-A network))
Dynamic range	95 dB (1 kHz) (CD: 94 dB (1 kHz))
Distortion	0.008 % (1 kHz)
Output level:	
Video	1.0 Vp-p/75 Ω (±0.2 V)
Audio	1.0 V (1 kHz, 0 dB)
Number of channels	2 (stereo)
MP3 decoding format	MPEG-1 & 2 Audio Layer 3
WMA decoding format	Ver. 7 & 8

FM tuner

Frequency range	87.5 – 108.0 MHz
Usable sensitivity	8 dBf (0.7 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	10 dBf (0.9 μV/75 Ω, mono)
Signal-to-noise ratio	75 dB (IEC-A network)
Distortion	0.3 % (at 65 dBf, 1 kHz, stereo) 0.1 % (at 65 dBf, 1 kHz, mono)
Frequency response	30 – 15,000 Hz (±3 dB)
Stereo separation	45 dB (at 65 dBf, 1 kHz)

AM tuner

Frequency range	531 – 1,602 kHz (9 kHz) 530 – 1,640 kHz (10 kHz)
Usable sensitivity	18 μV (S/N: 20 dB)
Signal-to-noise ratio	65 dB (IEC-A network)

Infrared remote control

Wavelength	945 nm
Output	typ; 10 mw/sr per Infrared LED

Note

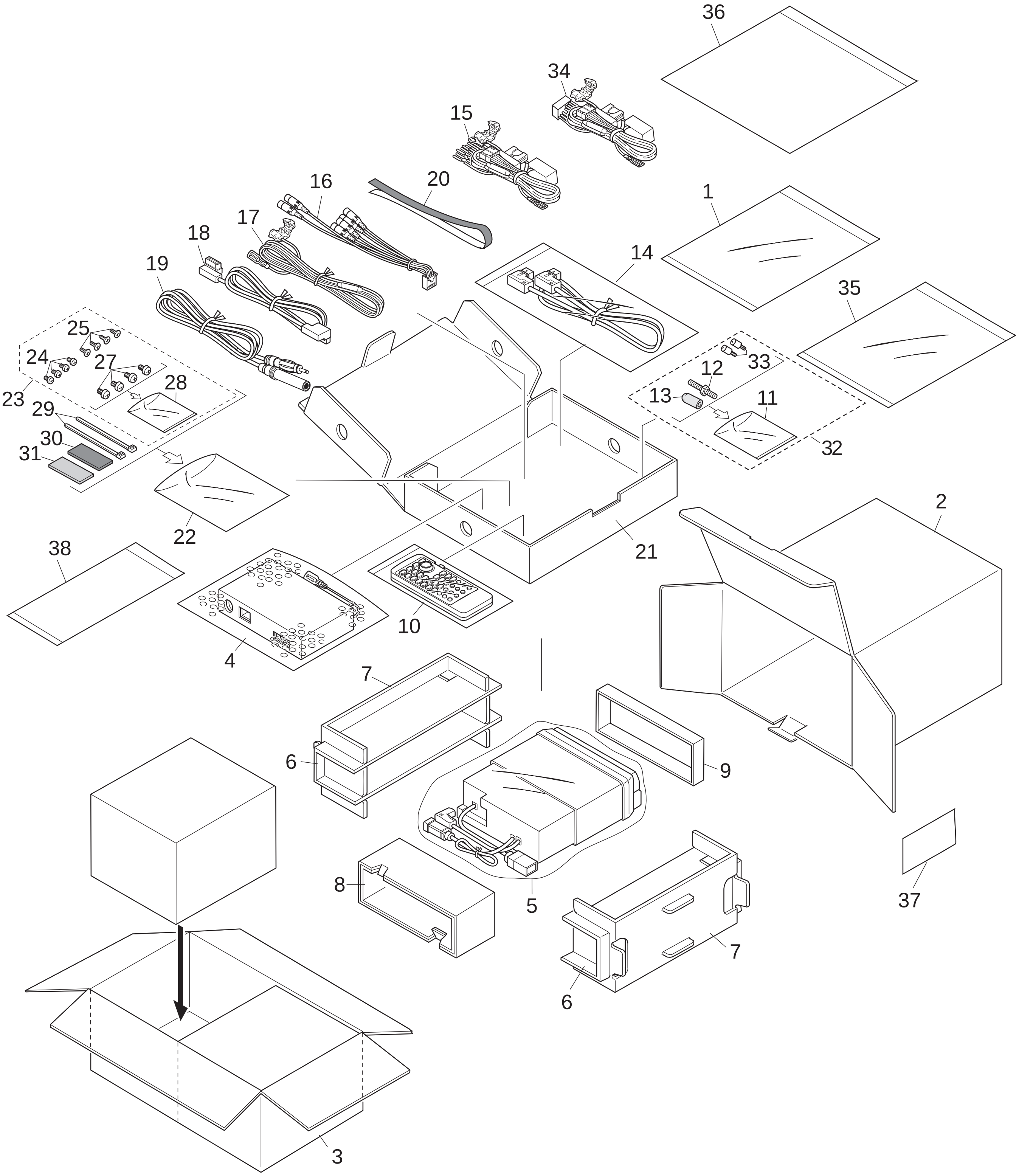
Specifications and the design are subject to possible modifications without notice due to improvements. ■

2. EXPLODED VIEWS AND PARTS LIST

*NOTES : • Parts marked by " * " are generally unavailable because they are not in our Master Spare Parts List.*

- *Screw adjacent to ▽ mark on the product are used for disassembly.*
- *For the applying amount of lobricants or glue, follow the instructions in this manual. (In the case of no amount instructions,apply as you think it appropriate.)*

2.1 PACKING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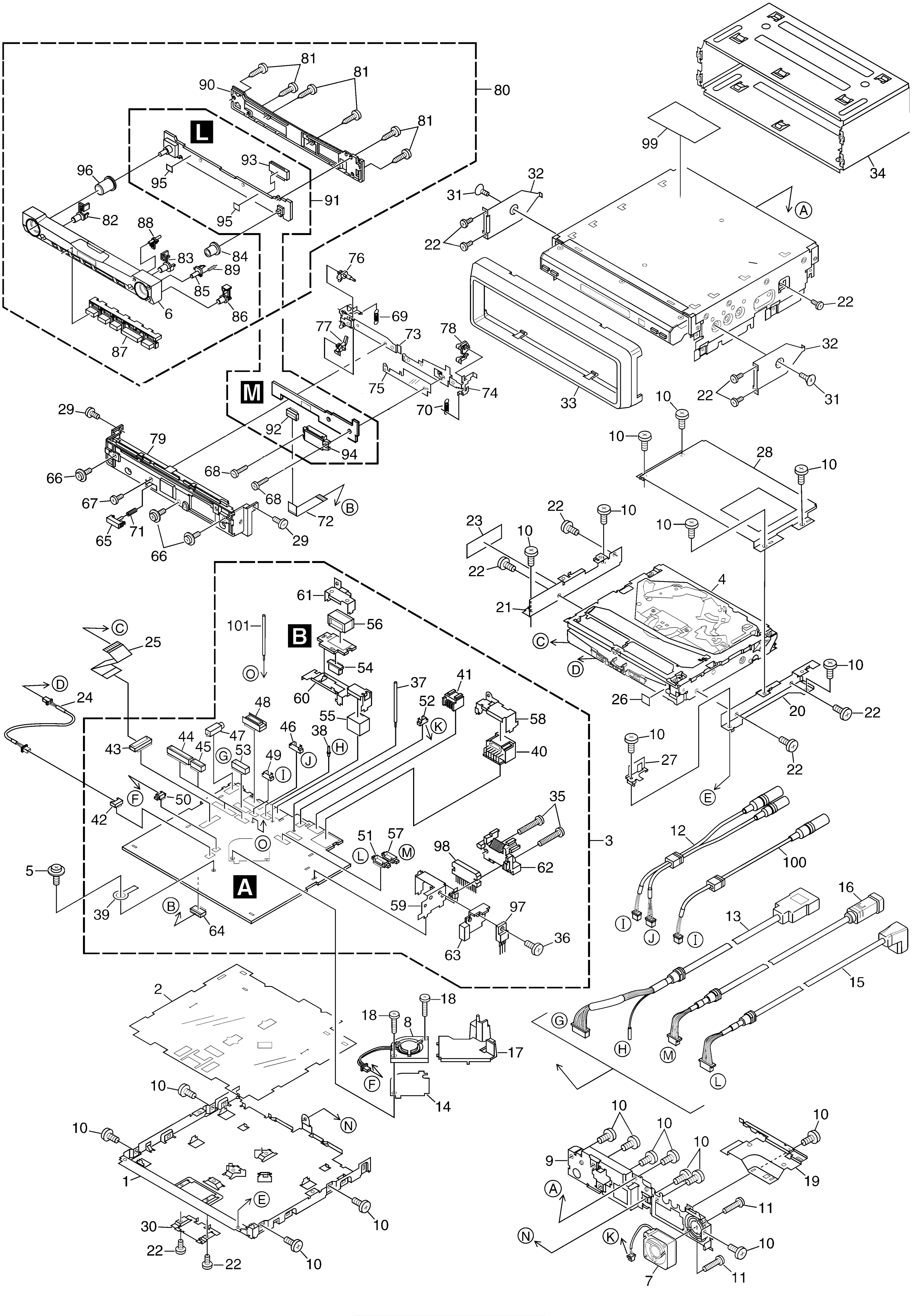
PACKING SECTION PARTS LIST

Mark	NO	Description	P6600DVD/UC	P6600DVD/EW	P6650DVD/RC	P6650DVD/RD
	1-1	Polyethylene Bag	CEG1116	CEG1116	CEG1116	CEG1116
	1-2	Owner's Manual	CRB1927	CRB1921	CRB1929	CRB1929
	1-3	Owner's Manual	CRB1928	CRB1922	CRB1930	CRB1931
	1-4	Owner's Manual	Not used	Not used	Not used	CRB1932
	1-5	Installation Manual	CRD3858	CRD3897	CRD3859	CRD3860
*	1-6	Card	ARY1048	Not used	Not used	Not used
	1-7	Caution Card	CRP1310	Not used	CRP1310	CRP1310
	2	Carton	CHG5221	CHG5220	CHG5222	CHG5222
	3	Contain Box	CHL5221	CHL5220	CHL5222	CHL5223
	4	Air Cushioned Bag	CEG1089	CEG1089	CEG1089	CEG1089
	5	Polyethylene Bag	CEG1185	CEG1088	CEG1088	CEG1088
	6	Protector	CHP2707	CHP2707	CHP2707	CHP2707
	7	Protector	CHP2706	CHP2706	CHP2706	CHP2706
	8	Protector	CHP2708	CHP2708	CHP2708	CHP2708
	9	Protector	CHP2387	CHP2387	CHP2387	CHP2387
	10	Remote Control Unit	CXC3074	CXC3075	CXC3075	CXC3075
*	11	Polyethylene Bag	E36-615	E36-615	E36-615	E36-615
	12	Screw	CBA1650	CBA1650	CBA1650	CBA1650
	13	Bush	CNV1917	CNV1917	CNV1917	CNV1917
	14	Cord Assy	CDE7445	CDE7445	CDE7445	CDE7445
	15	Cord Assy	CDE7609	Not used	CDE7609	CDE7609
	16	Cord Assy	CDE7194	CDE7194	CDE7194	CDE7194
	17	Cord Assy	CDE7321	CDE7321	CDE7321	CDE7321
	18	Cord Assy	CDE7187	CDE7187	CDE7187	CDE7187
	19	Antenna Cable	CDH1281	CDH1281	CDH1281	CDH1281
	20	Sheet	CNM8603	CNM8603	CNM8603	CNM8603
	21	Sub Craton	CHG5080	CHG5080	CHG5080	CHG5080
*	22	Polyethylene Bag	CEG-158	CEG-158	CEG-158	CEG-158
	23	Screw Assy	CEA3686	CEA3686	CEA3686	CEA3686
	24	Screw(M4x3)	CBA1468	CBA1468	CBA1468	CBA1468
	25	Screw	CMZ50P060FTC	CMZ50P060FTC	CMZ50P060FTC	CMZ50P060FTC
	26	•••••				
	27	Screw	BMZ50P060FTC	BMZ50P060FTC	BMZ50P060FTC	BMZ50P060FTC
*	28	Polyethylene Sheet	CNM4338	CNM4338	CNM4338	CNM4338
*	29	Lock Tie	Not used	CNV-754	CNV-754	CNV-754
*	30	Fastener	CNM6544	CNM6544	CNM6544	CNM6544
*	31	Fastener	CNM6545	CNM6545	CNM6545	CNM6545
	32	Accessory Assy	CEA3685	CEA3685	CEA3743	CEA3743
	33	Fixing Screw	JGZ20P070FTC	JGZ20P070FTC	Not used	Not used
	34	Cord Assy	Not used	CDE7608	Not used	Not used
	35-1	Polyethylene Bag	Not used	CEG1116	Not used	Not used
	35-2	Owner's Manual	Not used	CRB1923	Not used	Not used
	35-3	Owner's Manual	Not used	CRB1924	Not used	Not used
	35-4	Owner's Manual	Not used	CRB1925	Not used	Not used
	35-5	Owner's Manual	Not used	CRB1926	Not used	Not used
*	35-6	Passport	Not used	CRY1013	Not used	Not used
*	35-7	Warranty Card	Not used	CRY1157	Not used	Not used
	36	Cleaning Cloth Assy	CEA3952	CEA3952	CEA3952	CEA3952
	37	Seal	Not used	Not used	Not used	CAN4722
	38	Opt Terminal Change	Not used	Not used	CXC3584	CXC3584

Owner's Manual,Installation Manual

Part No.	Language
CRB1921	English
CRB1922	Spanish
CRB1923	German
CRB1924	French
CRB1925	Italian
CRB1926	Dutch
CRD3897	English,Spanish,German,French,Italian,Dutch
CRB1927	English
CRB1928	French
CRD3858	English,French
CRB1929	English
CRB1930	Traditional Chinese
CRD3859	English,Traditional Chinese
CRB1931	Spanish
CRB1932	Portuguese(B)
CRD3860	English,Spanish,Portuguese(B)

2.2 EXTERIOR(1)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(1)EXTERIOR(1) SECTION PARTS LIST

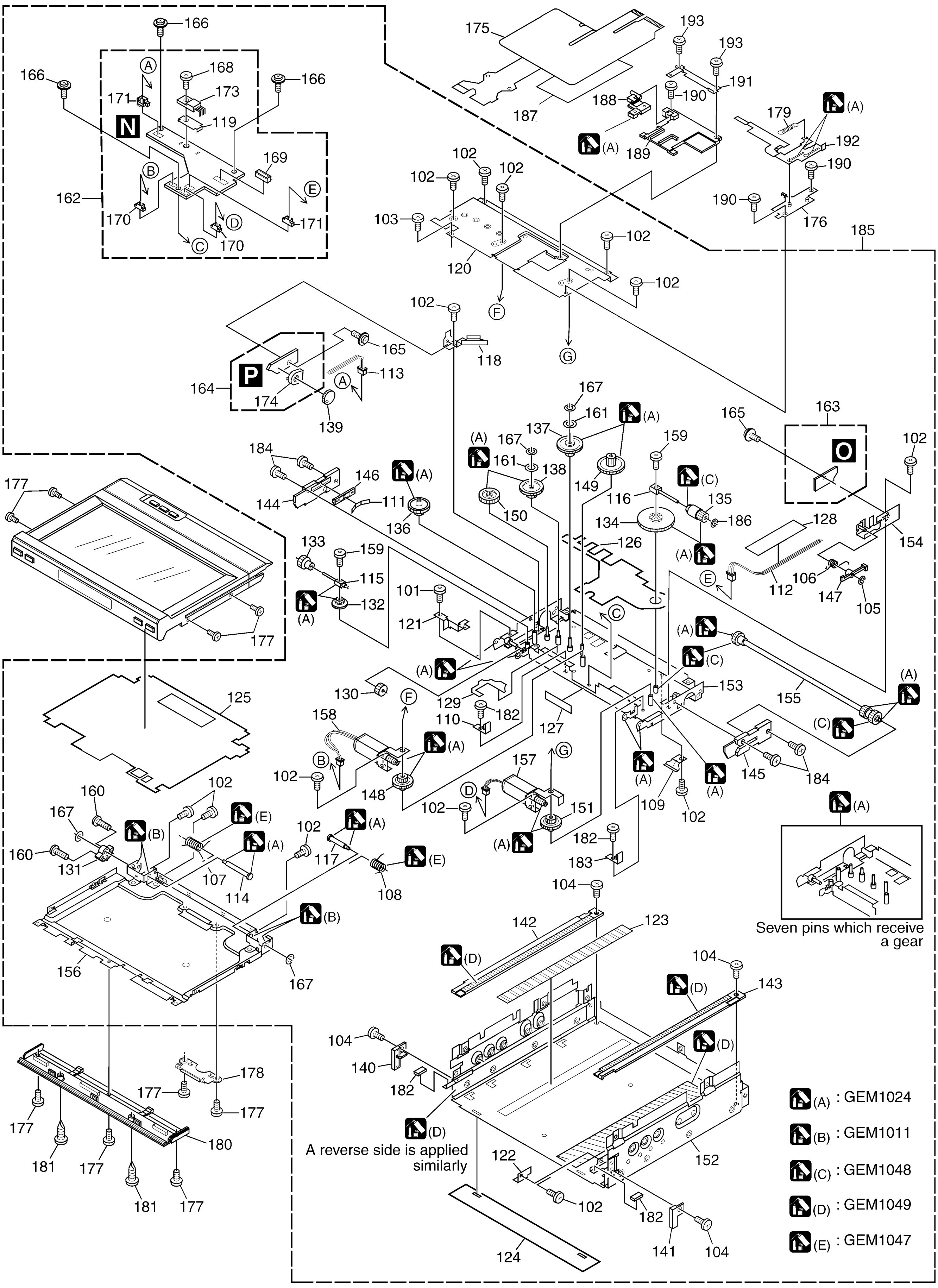
Mark	No.	Description	Part No.
	1	Case	CNB2948
	2	Insulator	CNM8646
	3	Mother Unit	See Contrast table(2)
	4	DVD Mechanism Mdule(MS-3V1)	CXK6410
	5	Screw	IMS26P040FTC
	6	Grille Unit(Service)	See Contrast table(2)
	7	Fan Motor(M1001)	CXM1262
	8	Fan Motor(M1002)	CXM1276
	9	Panel	See Contrast table(2)
	10	Screw	BMZ26P030FTC
	11	Screw	BMZ20P160FTC
	12	Cord Assy	See Contrast table(2)
	13	Cord Assy	See Contrast table(2)
	14	Insulator	CNM8864
	15	Cord Assy	CDE7450
	16	Cord Assy	CDE7449
	17	Guide	CNV7973
	18	Screw(M2x8)	CBA1752
	19	Holder	CND2034
	20	Bracket	CND1438
	21	Bracket	CND1439
	22	Screw	BMZ20P030FZK
	23	Insulator	CNM8495
	24	Cord	CDE7715
	25	Cable	CDE7452
	26	Spacer	CNM9272
	27	Earth	CBL1660
	28	Bracket	CND1603
	29	Screw(M2x2)	CBA1753
	30	Holder	CND1441
	31	Screw	CMZ50P060FTC
	32	Bracket	CND1482
	33	Panel	See Contrast table(2)
	34	Holder	CNC9510
	35	Screw	BMZ26P160FTC
	36	Screw	BSZ26P100FTC
	37	Clamper	CEF1036
	38	Terminal(CN102)	See Contrast table(2)
	39	Terminal(CN901)	CKF1064
	40	Connector(CN701)	CKM1332
	41	Connector(CN201)	CKM1389
	42	Connector(CN107)	CKS4282
	43	Connector(CN151)	CKS4052
	44	Connector(CN501)	CKS3930
	45	Connector(CN502)	VKN1533
	46	Connector(CN109)	See Contrast table(2)
	47	Jack(CN108)	CKN1022
	48	Connector(CN104)	CKS4800
	49	Connector(CN110)	CKS3125
	50	Connector(CN802)	CKS2191
	51	Connector(CN106)	CKS3132
	52	Connector(CN801)	CKS3124
	53	Connector(CN101)	See Contrast table(2)
	54	Connector(CN1500)	CKS4799
	55	Connector(CN103)	CKS4663
	56	Connector(CN1502)	CKS4467
	57	Connector(CN105)	CKS3130
	58	Holder	CND1433
	59	Holder	CND1434
	60	Holder	CND2035
	61	Holder	CND2036
	62	Heat Sink	CNR1684
	63	Heat Sink	CNR1703
	64	Connector(CN601)	CKS3986
	65	Button	CAC7953
	66	Screw(M2x4)	CBA1734
	67	Screw(M2.6x2.5)	CBA1777
	68	Screw(M2x4)	CBA1778
	69	Spring	CBH2681
	70	Spring	CBH2682
	71	Spring	CBH2683
	72	Flat Cable	CDE7179
	73	Holder	CND1840
	74	Holder	CND1841
	75	Insulator	CNM8510
	76	Arm	CNV7567
	77	Arm	CNV7568
	78	Arm	CNV7569
	79	Panel Unit	See Contrast table(2)
	80	Grille Assy	See Contrast table(2)
	81	Screw	BPZ20P080FZK
	82	Button(SRC)	CAC7946
	83	Button(EQ)	CAC7947
	84	Button	CAC8149
	85	Button(Detach Eject)	See Contrast table(2)
	86	Button(Disc Eject)	See Contrast table(2)
	87	Button	See Contrast table(2)
	88	Button(Reset)	See Contrast table(2)
	89	Spring	CBH2680
	90	Cover	CNS7441
	91	Keyboard Unit	See Contrast table(2)
	92	Connector(CN5901)	CKS3986
	93	Connector(CN5501)	CKS4657
	94	Connector(CN5902)	CKS4658
	95	Insulator	CNM8521
	96	Knob Unit	CXC2034
	97	Transistor(Q836)	2SD1275
	98	IC(IC202)	PAL007A
	99	Label	See Contrast table(2)
	100	Cord Assy	See Contrast table(2)
	101	Clamper	See Contrast table(2)

(2) CONTRAST TABLE

AVH-P6600DVD/UC , AVH-P6600DVD/EW , AVH-P6650DVD/RC and AVH-P6650DVD/RD are constructed the same except for the following:

Mark	NO	Description	P6600DVD/UC	P6600DVD/EW	P6650DVD/RC	P6650DVD/RD
	3	Mother Unit	CWM9143	CWM9142	CWM9144	CWM9145
	6	Grille Unit(Service)	CXX1801	CXX1800	CXX1802	CXX1802
	9	Panel	CNB2946	CNB2946	CNB2947	CNB2947
	12	Cord Assy	CDE7456	CDE7456	Not used	Not used
	13	Cord Assy	CDE7451	CDE7451	Not used	Not used
	33	Panel	CNS7785	CNS7785	CNS7481	CNS7481
	38	Terminal(CN102)	CKF-047	CKF-047	Not used	Not used
	46	Connector(CN109)	CKS3126	CKS3126	Not used	Not used
	53	Connector(CN101)	CKS4454	CKS4454	Not used	Not used
	79	Panel Unit	CXC2662	CXC2662	CXC3277	CXC3277
	80	Grille Assy	GXC1007	GXC1009	GXC1008	GXC1008
	85	Button(Detach Eject)	CAC8452	CAC8452	CAC7951	CAC7951
	86	Button(Disc Eject)	CAC8453	CAC8453	CAC7950	CAC7950
	87	Button	CAC8454	CAC8454	CAC8922	CAC8922
	88	Button(Reset)	CAC8456	CAC8456	CAC8054	CAC8054
	91	Keyboard Unit	CWM8766	CWM8765	CWM8766	CWM8766
	99	Label	Not used	VRW1860	Not used	Not used
	100	Cord Assy	Not used	Not used	CDE7457	CDE7457
	101	Clamper	CEF1036	CEF1036	Not used	Not used

2.3 EXTERIOR(2)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Seven pins which receive a gear

A reverse side is applied similarly

(A) : GEM1024

(B) : GEM1011

(C) : GEM1048

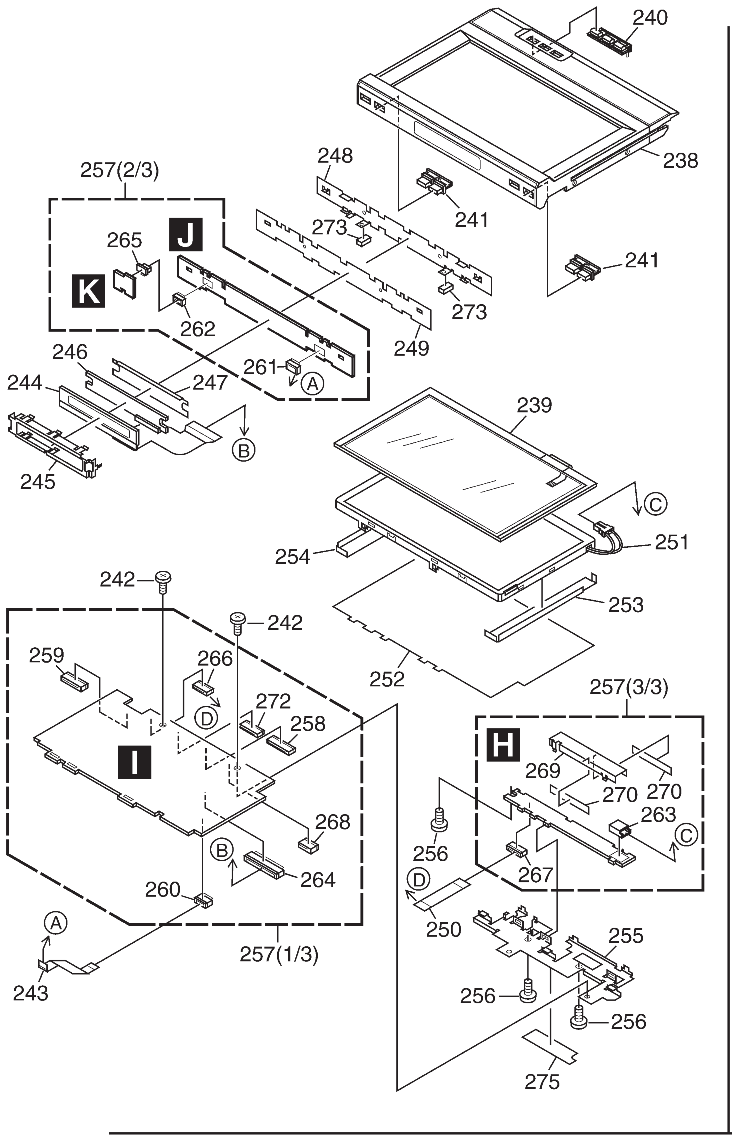
(D) : GEM1049

(E) : GEM1047

EXTERIOR(2) SECTION PARTS LIST

Mark	No.	Description	Part No.
	101	Screw(M2x3)	CBA1082
	102	Screw(M2x2.5)	CBA1250
	103	Screw(M2x4)	CBA1277
	104	Screw(M2x1.5)	CBA1615
	105	Washer	CBF1038
	106	Spring	CBH2645
	107	Spring	CBH2646
	108	Spring	CBH2647
	109	Spring	CBL1585
	110	Spring	CBL1586
	111	Spring	CBL1587
	112	Cord Assy	CDE7047
	113	Cord Assy	CDE7213
	114	Shaft	CLA4270
	115	Shaft	CLA4305
	116	Shaft	CLA4306
	117	Shaft	CLA4309
	118	Bracket	CND1221
	119	Heat Sink	CND1228
	120	Case	CND1229
	121	Holder	CND1318
	122	Holder	CND1449
	123	Sheet	CNM8522
	124	Sheet	CNM8037
	125	Insulator	CNM8048
	126	Insulator	CNM8158
	127	Sheet	CNM8159
	128	Tape	CNM8160
	129	Insulator	CNM8294
	130	Gear	CNR1664
	131	Gear	CNR1665
	132	Gear	CNR1677
	133	Gear	CNR1678
	134	Gear	CNR1679
	135	Gear	CNR1680
	136	Gear	CNR1688
	137	Gear	CNR1708
	138	Gear	CNR1709
	139	Gear	CNV7383
	140	Holder	CNV7384
	141	Holder	CNV7385
	142	Rack	CNV7386
	143	Rack	CNV7387
	144	Slider	CNV7388
	145	Slider	CNV7389
	146	Holder	CNV7390
	147	Arm	CNV7391
	148	Gear	CNV7522
	149	Gear	CNV7523
	150	Gear	CNV7524
	151	Gear	CNV7529
	152	Chassis Unit	CXB9509
	153	Frame Unit	CXB9511
	154	Holder Unit	CXB9512
	155	Shaft Unit	CXB9513
	156	Holder Unit	CXB9514
	157	Motor Unit(M3001)(Position)	CXB9515
	158	Motor Unit(M3002)(Angle)	CXB9516
	159	Screw	CZB3082
	160	Screw	CZB3083
	161	Washer	CZB3084
	162	Main Unit	CZW3087
	163	SW Unit	CZW3088
	164	Volume Unit	CZW3089
	165	Screw	IMS20P020FTC
	166	Screw	IMS20P030FZK
	167	Washer	YE15S
	168	Screw	BMZ26P050FTC
	169	Connector(CN3801)	CKS4068
	170	Connector(CN3802,CN3803)	CKS3124
	171	Connector(CN3807,3809)	CKS3125
	172	•••••	
	173	IC(IC3801)	BA00AST
	174	Volume(VR3841)	CCW1025
	175	Flexible PCB	CNP7682
	176	Bracket Unit	CXC3048
	177	Screw(M2x2)	CBA1753
	178	Holder	CND2243
	179	Spring	CBH2750
	180	Cover	CNS7438
	181	Screw	BPZ20P080FZK
	182	Screw(M2x1.8)	CZB3085
	183	Spring	CBL1642
	184	Screw(M2x4)	CZB3088
	185	Drive Unit	CXB9508
	186	Washer	CZB3089
	187	Sheet	CNM8952
	188	Arm	CNV8065
	189	Holder	CNV8066
	190	Screw(M2x3)	CBA1780
	191	Spring	CBL1679
	192	Lever	CND2202
	193	Screw(M2x3)	CBA1797

2.4 EXTERIOR(3)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257(3/3)
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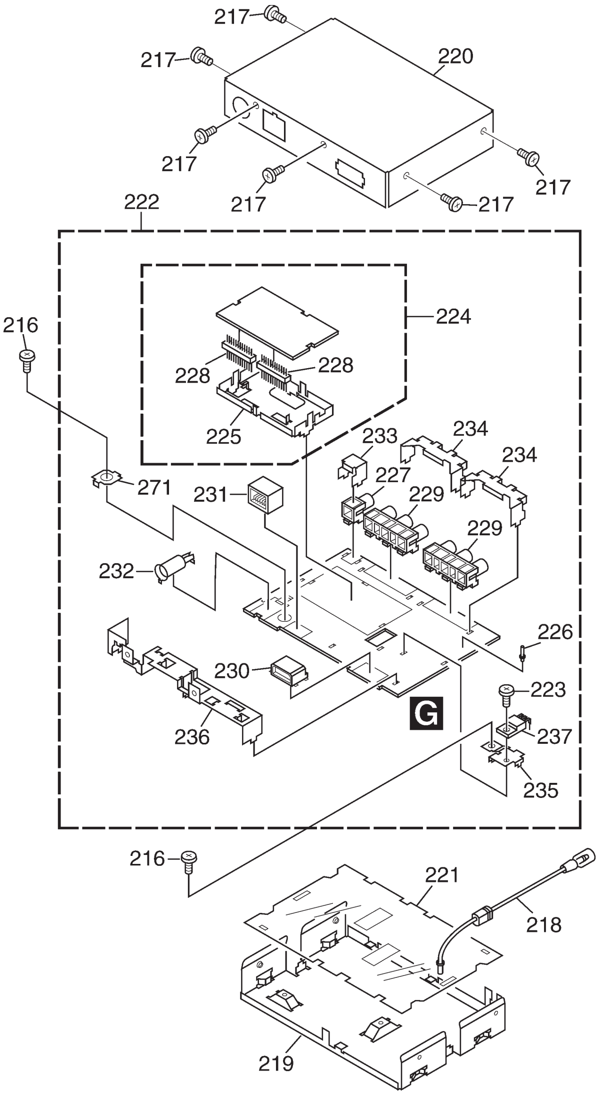
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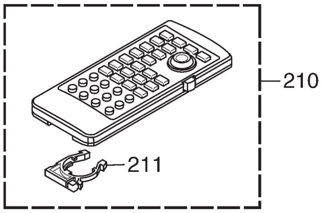

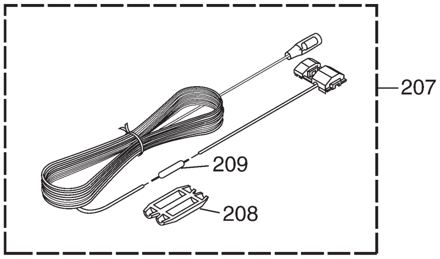

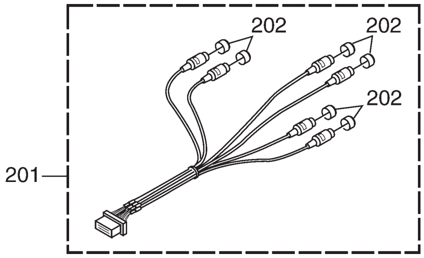
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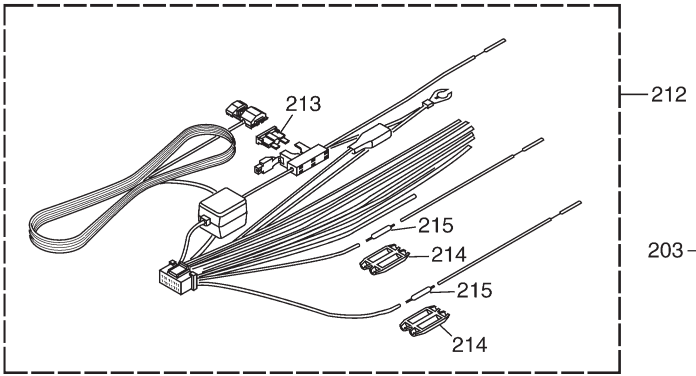
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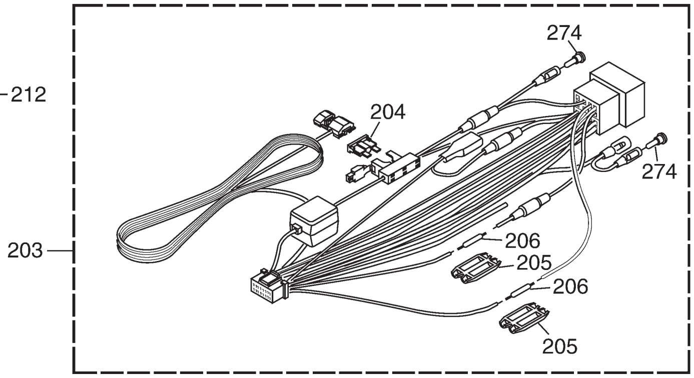
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(1)EXTERIOR(3) SECTION PARTS LIST

Mark	No.	Description	Part No.
	201	Cord Assy	CDE7194
	202	Cap	CNV6727
	203	Cord Assy	See Contrast table(2)
	204	Fuse(10A)	See Contrast table(2)
	205	Cap	See Contrast table(2)
	206	Resistor	See Contrast table(2)
	207	Cord Assy	CDE7321
	208	Cap	CNS1472
	209	Resistor	RS1/2PMF102J
	210	Remote Control Unit	See Contrast table(2)
	211	Cover	CZN5357
	212	Cord Assy	See Contrast table(2)
	213	Fuse(10A)	See Contrast table(2)
	214	Cap	See Contrast table(2)
	215	Resistor	See Contrast table(2)
	216	Screw	ISS26P055FTC
	217	Screw	BSZ30P060FZK
	218	Cord Assy	CDE7280
	219	Chassis	CNA2774
	220	Case	See Contrast table(2)
	221	Insulator	CNM9193
	222	Tuner Unit	See Contrast table(2)
	223	Screw	BMZ30P050FTC
	224	FM/AM Tuner Unit	See Contrast table(2)
	225	Holder	CND1432
	226	Terminal(CN1412)	CKF-047
	227	Pin Jack(CN1403)	CKS1065
	228	Connector(CN101,CN102)	CKS4653
	229	Pin Jack(CN1401,CN1402)	CKS2918
	230	Connector(CN1404)	CKS4467
	231	Connector(CN1405)	CKS4663
	232	Antenna Jack(CN1406)	CKX1056
	233	Holder	CNC6746
	234	Holder	CNC7205
	235	Holder	CNC9888
	236	Holder	CND1451
	237	Transistor(Q1404)	2SD2375
	238	Grille Unit	See Contrast table(2)

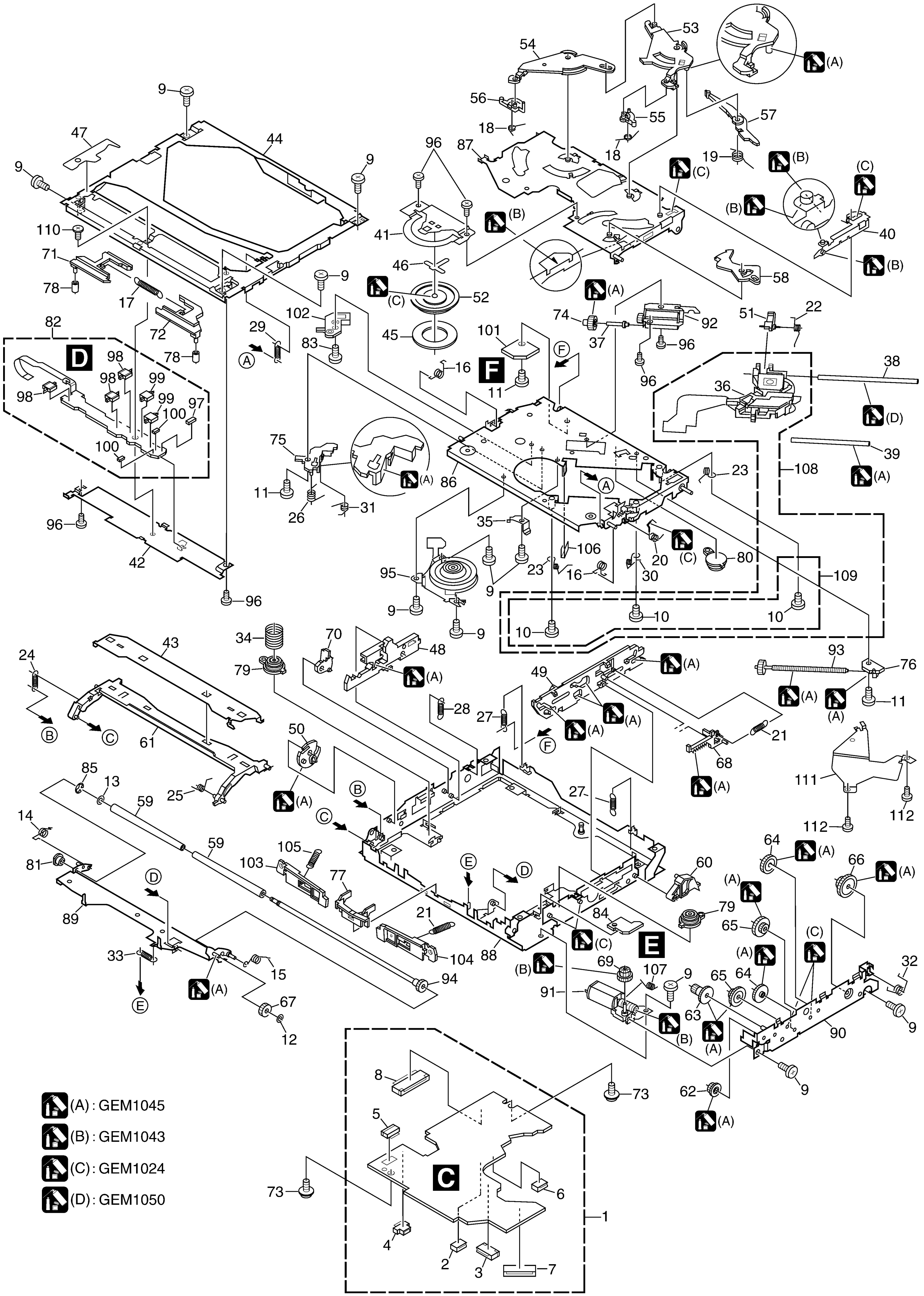
Mark	No.	Description	Part No.
	239	Touch Panel	CSX1064
	240	Button(ENT,WIDE,MENU)	See Contrast table(2)
	241	Button	CAC7936
	242	Screw(M2x2.2)	CBA1753
	243	FFC	CDE7195
	244	LCD	CAW1805
	245	Holder	CND1468
	246	Lighting Conductor	CNV7564
	247	Sheet	CNM8488
	248	Holder	CND1469
	249	Insulator	CNM8131
	250	FFC	CDE7196
	251	LCD Panel	CWX3056
	252	Insulator	CNM8930
	253	Sheet	CNM8265
	254	Sheet	CNM7784
	255	Holder	CND2037
	256	Screw	BPZ20P060FTC
	257	Monitor Unit	See Contrast table(2)
	258	Connector(CN4461)	CKS3968
	259	Connector(CN4801)	CKS3991
	260	Connector(CN4201)	CKS4054
	261	Connector(CN4301)	CKS4054
	262	Connector(CN4311)	CKS4374
	263	Connector(CN5002)	CKS4428
	264	Connector(CN4701)	CKS4495
	265	Connector(CN4312)	CKS4496
	266	Connector(CN4451)	CKS4595
	267	Connector(CN5001)	CKS4595
	268	Connector(CN4401)	CKS4675
	269	Holder	CND1677
	270	Insulator	CNM9251
	271	Holder(CN1407)	CNC5399
	272	Connector(CN4481)	CKS4319
	273	Cushion	CNM8440
	274	Cap See Contrast table(2)	
	275	Insulator	CNM9216

(2) CONTRAST TABLE

AVH-P6600DVD/UC , AVH-P6600DVD/EW , AVH-P6650DVD/RC and AVH-P6650DVD/RD are constructed the same except for the following:

Mark	NO	Description	P6600DVD/UC	P6600DVD/EW	P6650DVD/RC	P6650DVD/RD
	203	Cord Assy	Not used	CDE7608	Not used	Not used
	204	Fuse(10A)	Not used	CEK1136	Not used	Not used
	205	Cap	Not used	CNS1472	Not used	Not used
	206	Resistor	Not used	RS1/2PMF102J	Not used	Not used
	210	Remote Control Unit	CXC3074	CXC3075	CXC3075	CXC3075
	212	Cord Assy	CDE7609	Not used	CDE7609	CDE7609
	213	Fuse(10A)	CEK1136	Not used	CEK1136	CEK1136
	214	Cap	CNS1472	Not used	CNS1472	CNS1472
	215	Resistor	RS1/2PMF102J	Not used	RS1/2PMF102J	RS1/2PMF102J
	220	Case	CNB2963	CNB2963	CNB2964	CNB2964
	222	Tuner Unit	CWM9203	CWM9202	CWM9203	CWM9203
	224	FM/AM Tuner Unit	CWE1651	CWE1650	CWE1651	CWE1651
	238	Grille Unit	CXC2660	CXC2659	CXC2661	CXC2661
	240	Button (ENT,WIDE,MENU)	CAC8451	CAC8451	CAC8688	CAC8688
	257	Monitor Unit	CWM9148	CWM9147	CWM9149	CWM9149
	274	Cap	Not used	CKX-003	Not used	Not used

2.5 DVD MECHANISM MODULE



53
(A)
54
9
56
57
55
18
47
44
96
87
18
19
(B)
9
9
(C)
(C)
(B)
110
41
(B)
40
(B)
71
46
58
9
78
(C)
52
(A)
17
102
74
92
51
22
82
29
101
37
96
72
83
38
D
98
78
(F)
45
98
99
16
F
96
36
98
99
100
97
11
(D)
(A)
75
100
108
39
86
23
(A)
11
(A)
26
31
35
96
106
20
(C)
80
42
95
23
16
30
109
9
9
10
10
96
10
34
70
48
93
76
24
43
79
(A)
(A)
49
11
(A)
(A)
(A)
28
27
(A)
(A)
(B)
(C)
61
(F)
21
50
68
85
25
27
111
13
(B)
(A)
59
(C)
112
14
112
64
59
105
(E)
(D)
60
66
81
103
77
(A)
(A)
(D)
79
89
21
84
65
(C)
E
33
104
88
(A)
15
(B)
69
107
9
32
94
91
65
64
(A)
(E)
67
63
90
12
(B)
(A)
9
8
73
62
9
5
(A)
C
73
6
1
4
2
3
7

(A) : GEM1045

(B) : GEM1043

(C) : GEM1024

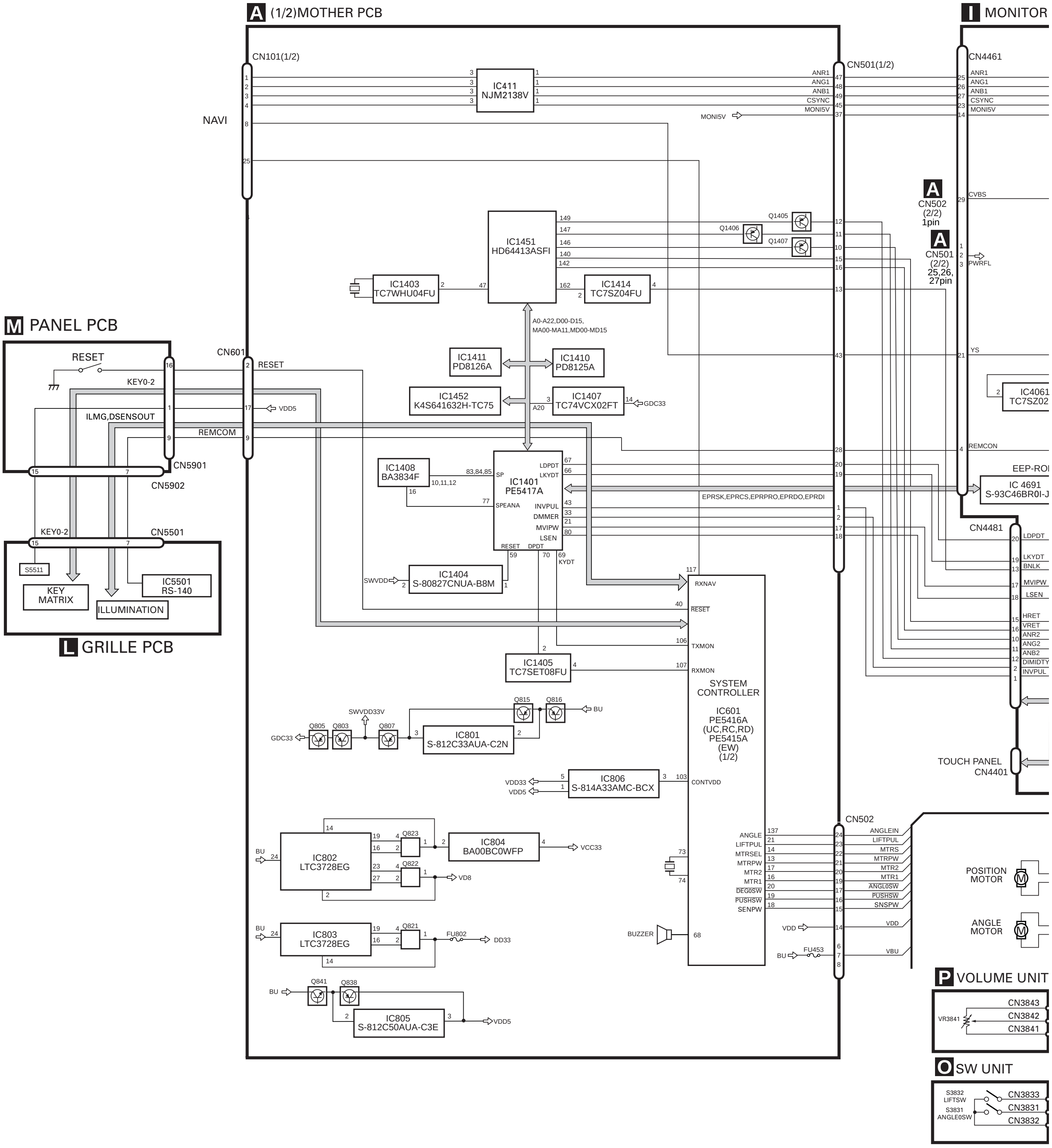
(D) : GEM1050

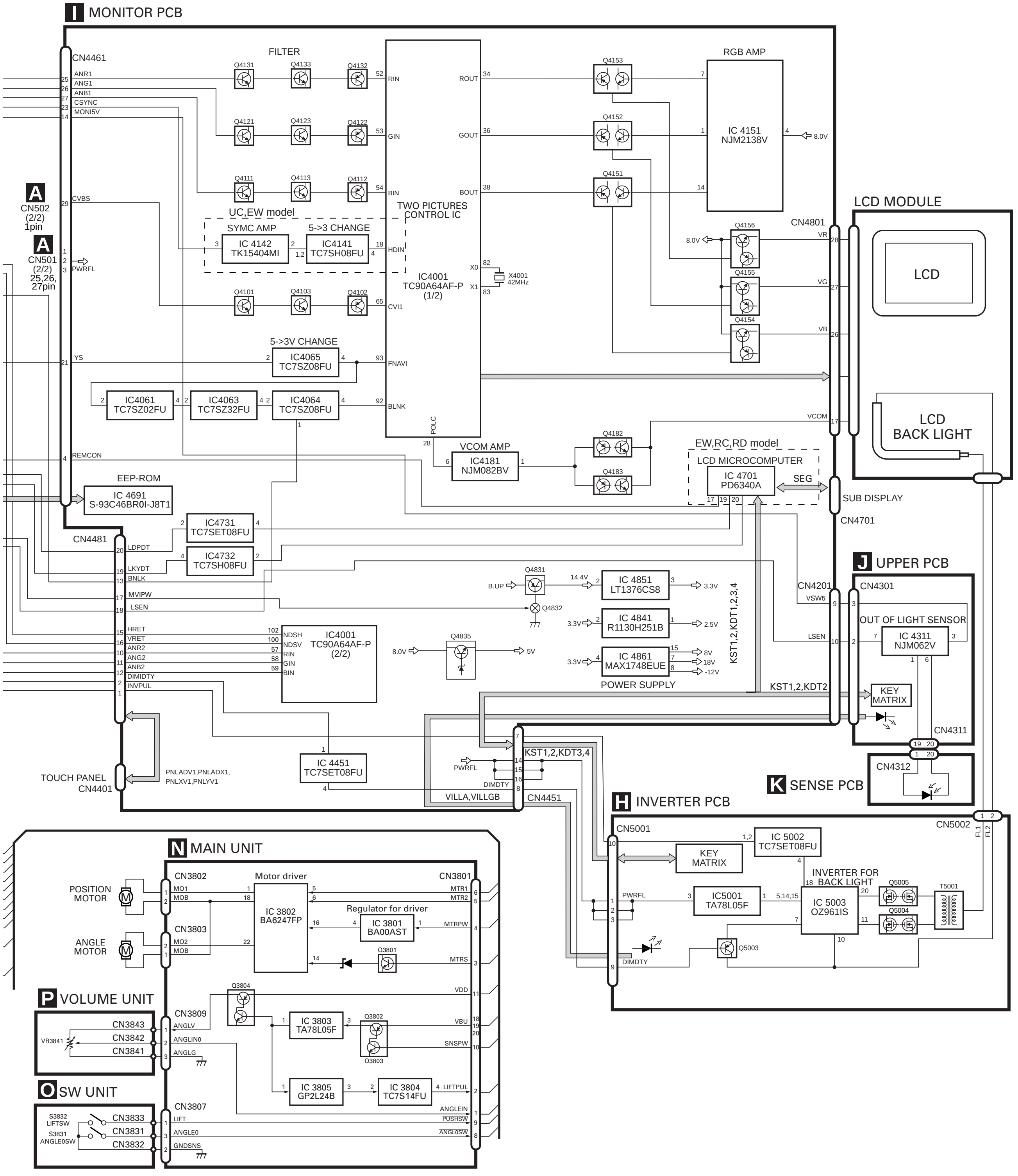
DVD MECHANISM MODULE SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	DVD Core Unit(MS-3V1)	CWX2883
	2	Connector(CN1902)	CKS4374
	3	Connector(CN1201)	CKS4067
	4	Connector(CN1551)	CKS4817
	5	Connector(CN1231)	CKS4624
	6	Connector(CN1903)	CKS4374
	7	Connector(CN1101)	CKS4625
	8	Connector(CN1901)	CKS3971
	9	Screw	BMZ20P020FTC
	10	Screw(M2 x 3.5)	CBA1571
	11	Screw(M2 x 2.5)	CBA1623
	12	Washer	CBF1038
	13	Washer	CBF1064
	14	Spring	CBH2586
	15	Spring	CBH2587
	16	Spring	CBH2588
	17	Spring	CBH2589
	18	Spring	CBH2590
	19	Spring	CBH2591
	20	Spring	CBH2592
	21	Spring	CBH2593
	22	Spring	CBH2594
	23	Spring	CBH2595
	24	Spring	CBH2596
	25	Spring	CBH2597
	26	Spring	CBH2598
	27	Spring	CBH2599
	28	Spring	CBH2600
	29	Spring	CBH2601
	30	Spring	CBH2602
	31	Spring	CBH2603
	32	Spring	CBH2604
	33	Spring	CBH2605
	34	Spring	CBH2711
	35	Spring	CBL1564
	36	Pickup Unit(Service)	CXX1770
	37	Shaft	CLA3881
	38	Shaft	CLA4206
	39	Shaft	CLA4207
	40	Lever	CNC9933
	41	Holder	CNC9939
	42	Holder	CND2251
	43	Holder	CNC9941
	44	Frame	CND2250
	45	Sheet	CNM6883
	46	Sheet	CNM8283
	47	Sheet	CNM8643
	48	Lever	CNV8076
	49	Lever	CNV7155
	50	Cam	CNV7156
	51	Rack	CNV7157
	52	Clamper	CNV7158
	53	Arm	CNV7159
	54	Arm	CNV7160
	55	Arm	CNV7161
	56	Arm	CNV7162
*	57	Arm	CNV7163
	58	Arm	CNV7164
	59	Roller	CNV7165
	60	Arm	CNV7166
	61	Guide	CNV8093
	62	Gear	CNV7169
	63	Gear	CNV7170
	64	Gear	CNV7171
	65	Gear(Black)	CNV7172
	66	Gear	CNV7173
	67	Gear	CNV7174
	68	Rack	CNV7175
	69	Gear	CNV7176
	70	Arm	CNV8077
	71	Lever	CNV7178
	72	Lever	CNV7179
	73	Screw	IMS20P030FTC
	74	Gear	CNV7181
	75	Holder	CNV7183
	76	Holder	CNV7184
	77	Guide	CNV7745
	78	Roller	CNV7344
	79	Damper	CNV7470
	80	Damper	CNV7471
	81	Collar	CNV7645
	82	Compound(A)	CWX3024
	83	Screw(M2x2)	CBA1802
	84	Compound(B)	CWX2753
	85	Washer	YE20FTC
	86	Chassis Unit	CXC3629
	87	Arm Unit	CXB8681
	88	Frame Unit	CXB8683
	89	Arm Unit	CXC2988
	90	Bracket Unit	CXB8685
	91	Motor Unit(LOADING)(M1)	CXB8687
	92	Motor Unit(CARRIAGE)(M2)	CXB8688
	93	Screw Unit	CXB8689
	94	Roller Unit	CXB8690
	95	Motor(SPINDLE)(M3)	CXM1272
	96	Screw	JFZ20P018FTC
	97	Photo-transistor(Q1299)	CPT231SCTD
	98	Switch(S1201,S1202,S1203)	CSN1051
	99	Spring Switch(S1204,S1205)	CSN1052
	100	Resistor(R1298,R1299)	RS1/16S0R0J
	101	Gathering PCB	CNX4320
	102	Holder	CNV8186
	103	Arm	CNV7742
	104	Arm	CNV7743
	105	Spring	CBH2710
	106	Spring	CBL1643
	107	Spring	CBH2712
	108	Pickup Unit(Service)(Screw)	GXX1242
	109	Screw Assy	CXX1750
	110	Screw(M1.4xM1.4)	CBA1787
	111	Cover	CNC9943
	112	Screw	JFZ20P018FTC

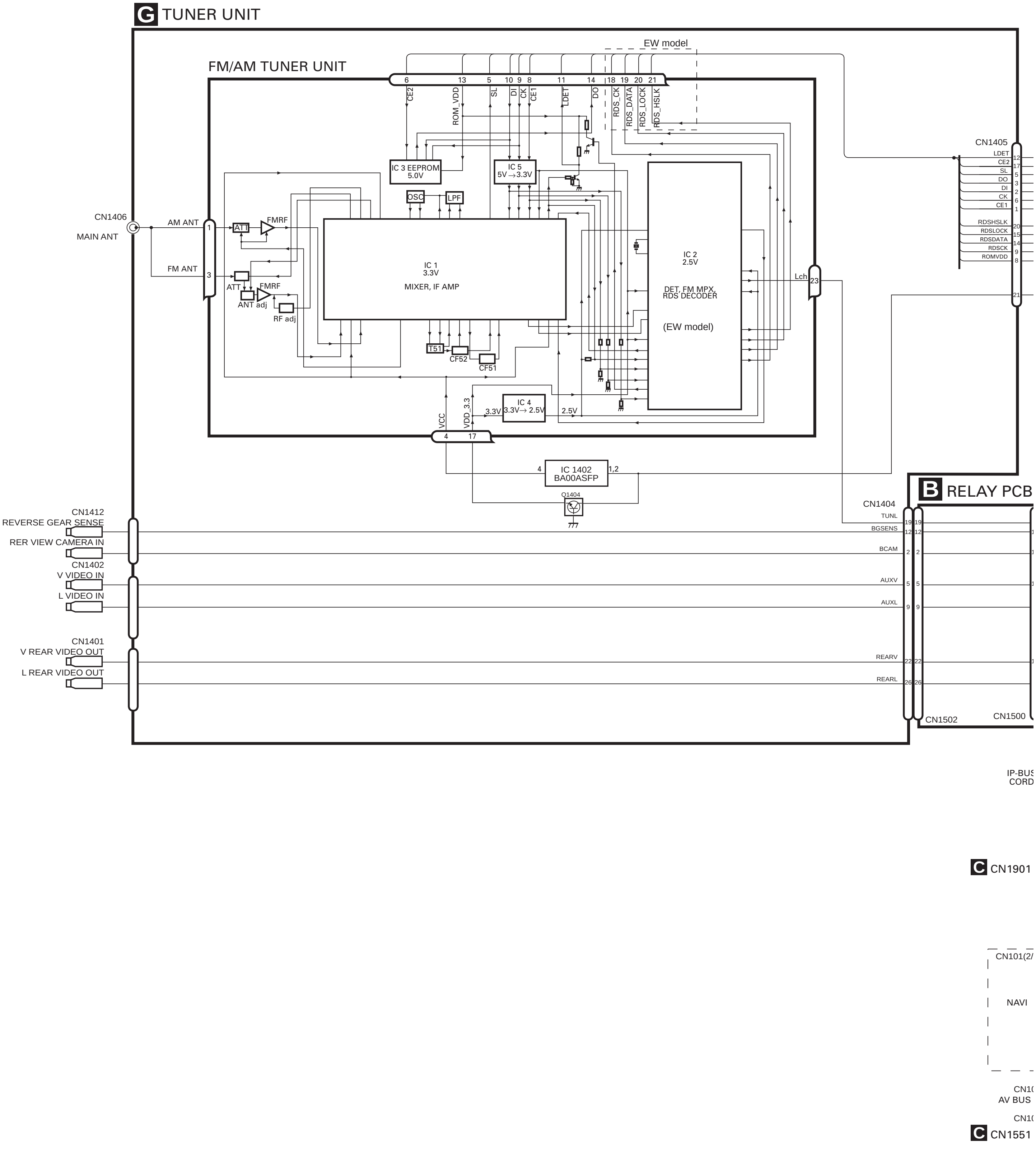
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

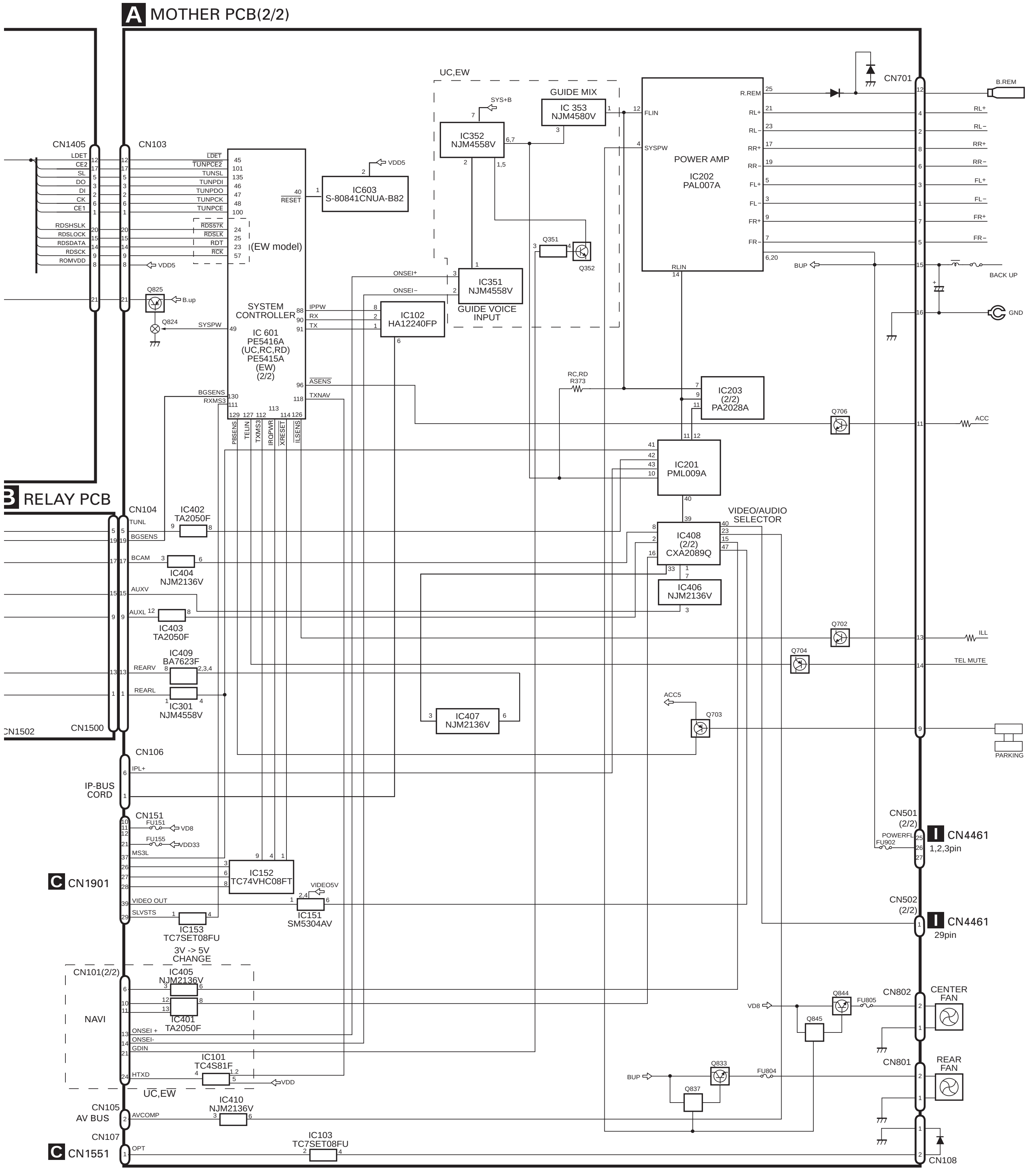
3.1 BLOCK DIAGRAM

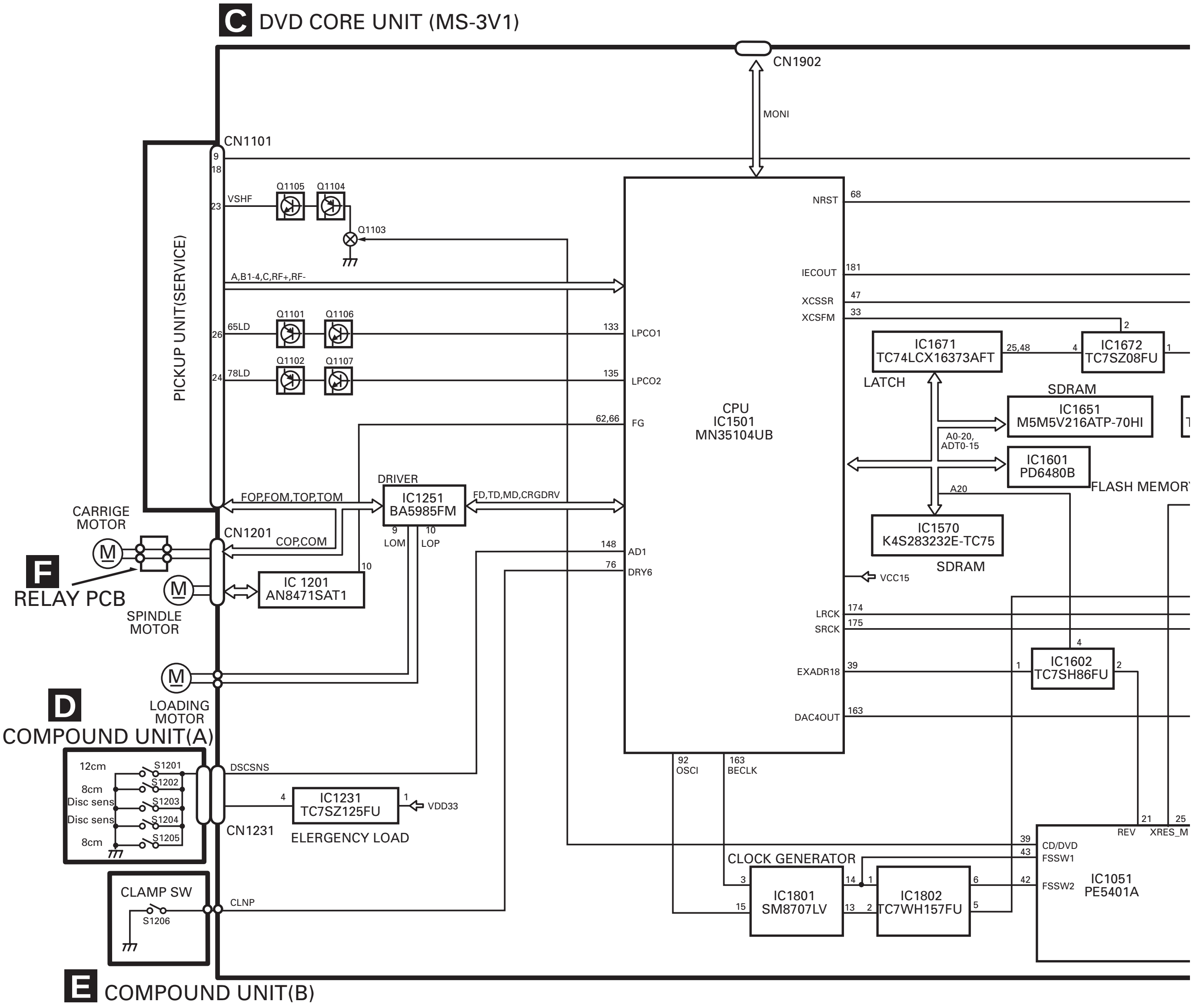

A (1/2)MOTHER PCB
I MONITOR
CN101(1/2)
NAVI
IC411
NJM2138V
CN501(1/2)
ANR1
ANG1
ANB1
CSYNC
MONI5V
CN4461
CVBS
YS
PWRFL
REMCON
A CN502 (2/2) 1pin
A CN501 (2/2) 25,26, 27pin
IC1451
HD64413ASFI
Q1405
Q1406
Q1407
IC1403
TC7WHU04FU
IC1414
TC7SZ04FU
A0-A22,D00-D15,
MA00-MA11,MD00-MD15
IC1411
PD8126A
IC1410
PD8125A
IC1452
K4S641632H-TC75
IC1407
TC74VCX02FT
GDC33
IC4061
TC7SZ02
M PANEL PCB
RESET
KEY0-2
ILMG,DSENSOUT
REMCOM
CN601
VDD5
CN5901
CN5902
CN5501
L GRILLE PCB
S5511
KEY MATRIX
ILLUMINATION
IC5501
RS-140
IC1408
BA3834F
IC1401
PE5417A
SP
SPEANA
LDPDT
LKYDT
INVPUL
DMMER
MVIPW
LSEN
RESET
DPDT
KYDT
EPRSK,EPRCS,EPRPRO,EPRDO,EPRDI
EEP-ROM
IC 4691
S-93C46BR0I-J
CN4481
LDPDT
LKYDT
BNLK
MVIPW
LSEN
HRET
VRET
ANR2
ANG2
ANB2
DIMIDTY
INVPUL
IC1404
S-80827CNUA-B8M
SWVDD
RXNAV
RESET
TXMON
RXMON
IC1405
TC7SET08FU
SYSTEM CONTROLLER
IC601
PE5416A
(UC,RC,RD)
PE5415A
(EW)
(1/2)
SWVDD33V
Q805
Q803
Q807
Q815
Q816
BU
IC801
S-812C33AUA-C2N
IC806
S-814A33AMC-BCX
VDD33
VDD5
CONTVDD
TOUCH PANEL
CN4401
IC802
LTC3728EG
Q823
Q822
IC804
BA00BC0WFP
VCC33
VD8
IC803
LTC3728EG
Q821
FU802
DD33
Q841
Q838
IC805
S-812C50AUA-C3E
CN502
ANGLE
LIFTPUL
MTRSEL
MTRPW
MTR2
MTR1
DEG0SW
PUSHSW
SENPW
ANGLEIN
LIFTPUL
MTRS
MTRPW
MTR2
MTR1
ANGL0SW
PUSHSW
SNSPW
VDD
VBU
FU453
BUZZER
POSITION MOTOR
ANGLE MOTOR
P VOLUME UNIT
VR3841
CN3843
CN3842
CN3841
O SW UNIT
S3832 LIFTSW
S3831 ANGLE0SW
CN3833
CN3831
CN3832

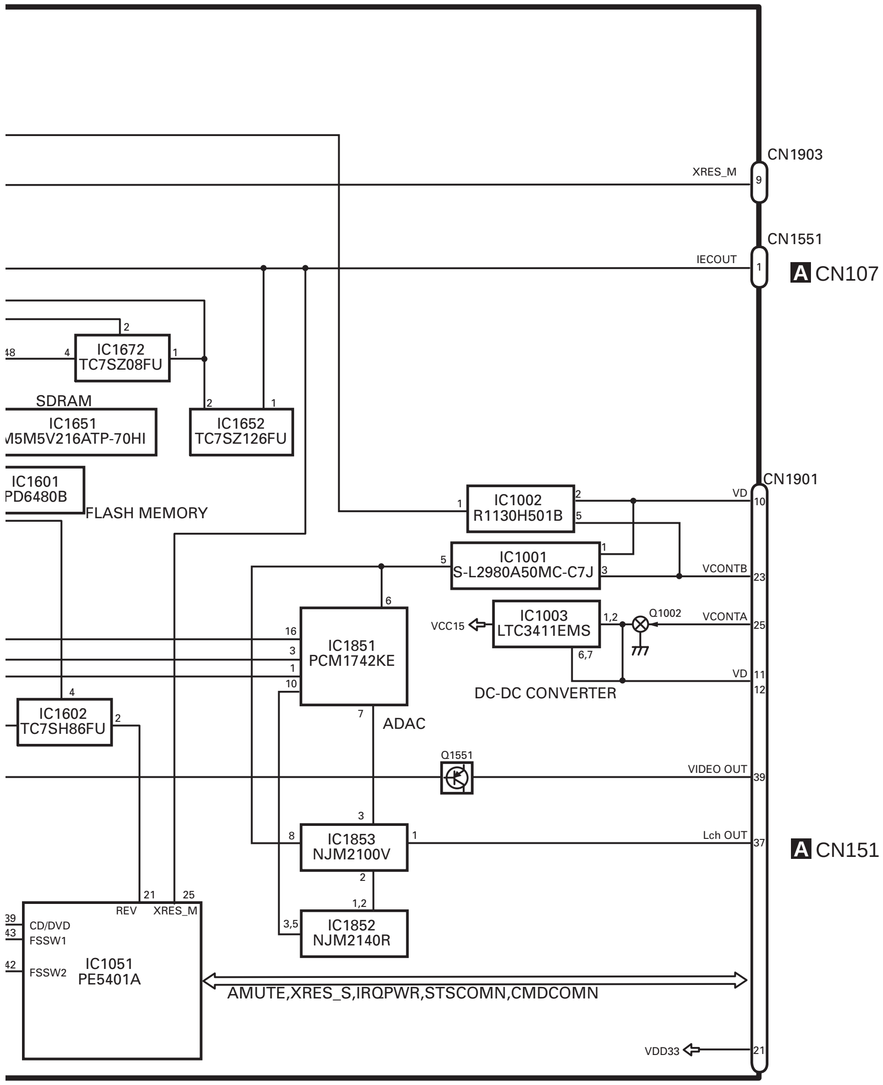


I MONITOR PCB
CN4461
FILTER
ANR1
ANG1
ANB1
CSYNC
MONI5V
Q4131
Q4133
Q4132
Q4121
Q4123
Q4122
Q4111
Q4113
Q4112
Q4101
Q4103
Q4102
RIN
GIN
BIN
HDIN
CVI1
FNAVI
BLNK
ROUT
GOUT
BOUT
X0
X1
X4001 42MHz
TWO PICTURES CONTROL IC
IC4001 TC90A64AF-P (1/2)
UC,EW model
SYMC AMP
IC 4142 TK15404MI
5->3 CHANGE
IC4141 TC7SH08FU
A CN502 (2/2) 1pin
A CN501 (2/2) 25,26, 27pin
CVBS
PWRFL
YS
5->3V CHANGE
IC4065 TC7SZ08FU
IC4061 TC7SZ02FU
IC4063 TC7SZ32FU
IC4064 TC7SZ08FU
POLC
VCOM AMP
IC4181 NJM082BV
REMCON
EEP-ROM
IC 4691 S-93C46BR0I-J8T1
RGB AMP
IC 4151 NJM2138V
8.0V
Q4153
Q4152
Q4151
Q4156
Q4155
Q4154
Q4182
Q4183
CN4801
VR
VG
VB
VCOM
LCD MODULE
LCD
LCD BACK LIGHT
EW,RC,RD model
LCD MICROCOMPUTER
IC 4701 PD6340A
SEG
SUB DISPLAY
CN4701
CN4481
LDPDT
LKYDT
BNLK
MVIPW
LSEN
HRET
VRET
ANR2
ANG2
ANB2
DIMIDTY
INVPUL
IC4731 TC7SET08FU
IC4732 TC7SH08FU
IC4001 TC90A64AF-P (2/2)
NDSH
NDSV
RIN
GIN
BIN
Q4831
B.UP
14.4V
IC 4851 LT1376CS8
3.3V
Q4832
IC 4841 R1130H251B
2.5V
Q4835
8.0V
5V
IC 4861 MAX1748EUE
8V
18V
-12V
POWER SUPPLY
KST1,2,KDT1,2,3,4
KST1,2,KDT2
J UPPER PCB
CN4201
CN4301
VSW5
OUT OF LIGHT SENSOR
IC 4311 NJM062V
KEY MATRIX
CN4311
CN4312
K SENSE PCB
TOUCH PANEL CN4401
PNLADV1,PNLADX1, PNLXV1,PNLYV1
IC 4451 TC7SET08FU
KST1,2,KDT3,4
PWRFL
DIMDTY
VILLA,VILLGB
CN4451
H INVERTER PCB
CN5001
CN5002
IC 5002 TC7SET08FU
KEY MATRIX
INVERTER FOR BACK LIGHT
IC5001 TA78L05F
IC 5003 OZ961IS
Q5005
Q5004
T5001
Q5003
DIMDTY
FL1
FL2
N MAIN UNIT
CN3802
Motor driver
CN3801
POSITION MOTOR
MO1
MOB
IC 3802 BA6247FP
MTR1
MTR2
Regulator for driver
IC 3801 BA00AST
MTRPW
CN3803
ANGLE MOTOR
MO2
MOB
Q3801
MTRS
Q3804
VDD
CN3809
ANGLV
ANGLIN0
ANGLG
IC 3803 TA78L05F
Q3802
Q3803
VBU
SNSPW
IC 3805 GP2L24B
IC 3804 TC7S14FU
LIFTPUL
P VOLUME UNIT
CN3843
CN3842
CN3841
VR3841
O SW UNIT
S3832 LIFTSW
S3831 ANGLE0SW
CN3833
CN3831
CN3832
CN3807
LIFT
ANGLE0
GNDSNS
ANGLEIN
PUSHSW
ANGL0SW

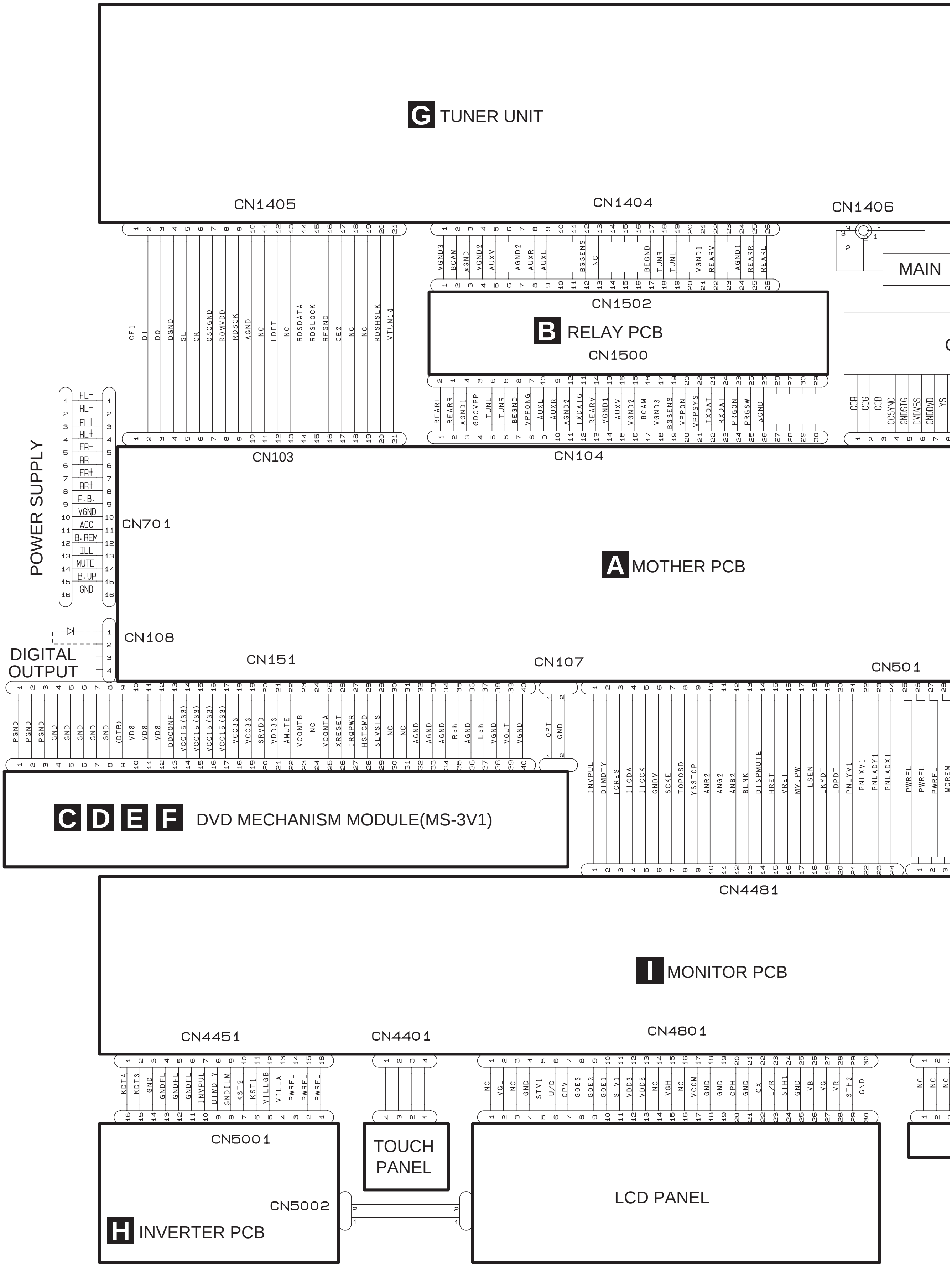

G TUNER UNIT
EW model
FM/AM TUNER UNIT
6 13 5 10 9 8 11 14 18 19 20 21
CE2
ROM_VDD
SL
DI
CK
CE1
LDET
DO
RDS_CK
RDS_DATA
RDS_LOCK
RDS_HSLK
IC 3 EEPROM 5.0V
IC 5 5V → 3.3V
OSC
LPF
CN1406
MAIN ANT
AM ANT
FM ANT
1
3
ATT
FMRF
ATT
FMRF
ANT adj
RF adj
IC 1 3.3V
MIXER, IF AMP
IC 2 2.5V
DET, FM MPX, RDS DECODER
(EW model)
Lch
23
T51
CF52
CF51
IC 4 3.3V→ 2.5V
3.3V
2.5V
VCC
VDD_3.3
4 17
4
IC 1402 BA00ASFP
1,2
Q1404
CN1405
LDET 12
CE2 17
SL 5
DO 3
DI 2
CK 6
CE1 1
RDSHSLK 20
RDSLOCK 15
RDSDATA 14
RDSCK 9
ROMVDD 8
21
B RELAY PCB
CN1404
TUNL 19 19
BGSENS 12 12
BCAM 2 2
AUXV 5 5
AUXL 9 9
REARV 22 22
REARL 26 26
CN1502
CN1500
CN1412
REVERSE GEAR SENSE
RER VIEW CAMERA IN
CN1402
V VIDEO IN
L VIDEO IN
CN1401
V REAR VIDEO OUT
L REAR VIDEO OUT
IP-BUS CORD
C CN1901
CN101(2/
NAVI
AV BUS
C CN1551

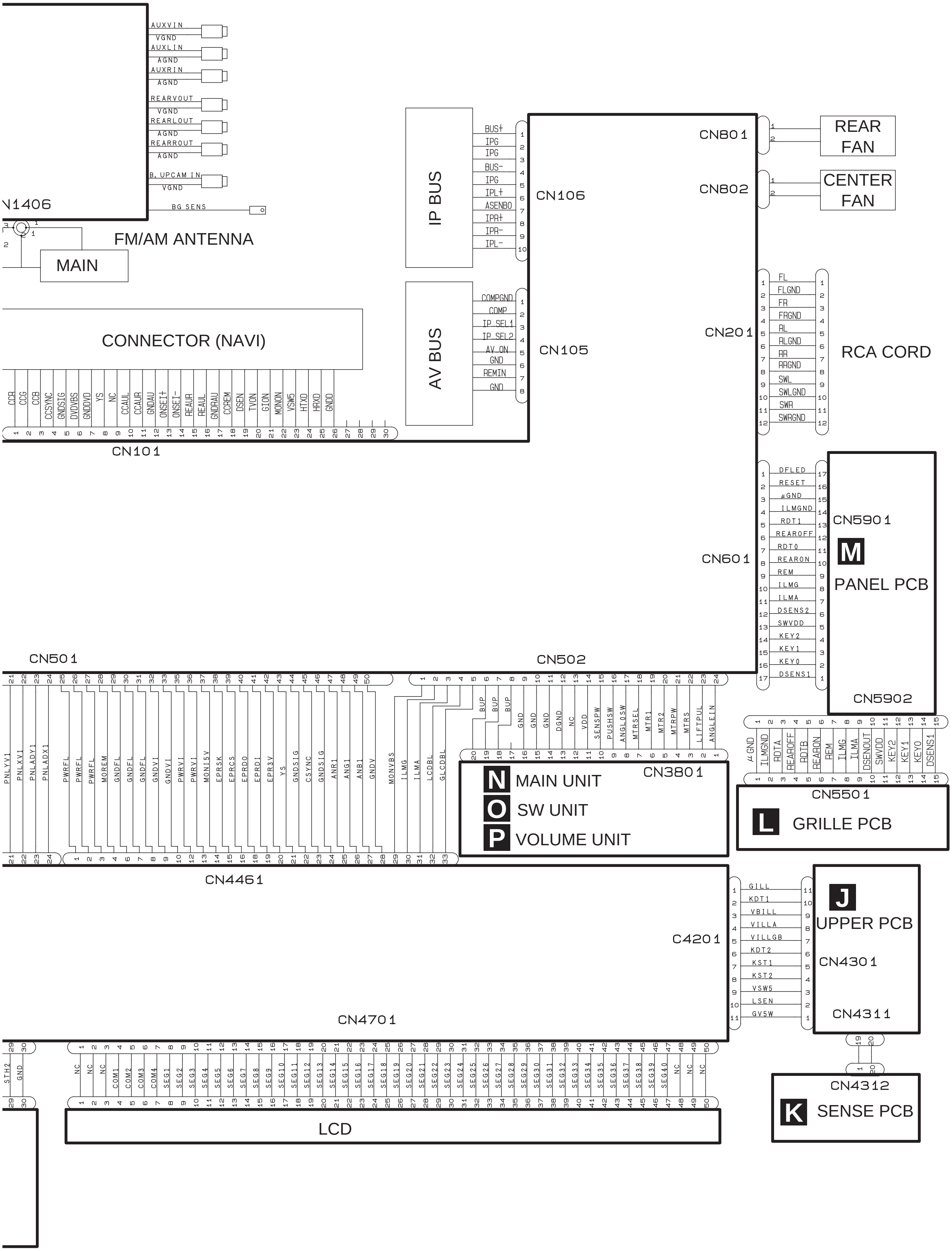

A MOTHER PCB(2/2)
B RELAY PCB
CN1405
CN103
LDET
CE2
SL
DO
DI
CK
CE1
RDSHSLK
RDSLOCK
RDSDATA
RDSCK
ROMVDD
TUNPCE2
TUNSL
TUNPDI
TUNPDO
TUNPCK
TUNPCE
RDS57K
RDSLK
RDT
RCK
VDD5
(EW model)
Q825
B.up
Q824
SYSPW
SYSTEM CONTROLLER
IC 601
PE5416A
(UC,RC,RD)
PE5415A
(EW)
(2/2)
RESET
IPPW
RX
TX
ASENS
TXNAV
BGSENS
RXMS3
PBSENS
TELIN
TXMS3
IRQPWR
XRESET
ILSENS
IC603
S-80841CNUA-B82
VDD5
UC,EW
IC352
NJM4558V
SYS+B
GUIDE MIX
IC 353
NJM4580V
Q351
Q352
ONSEI+
ONSEI−
IC351
NJM4558V
GUIDE VOICE
INPUT
IC102
HA12240FP
POWER AMP
IC202
PAL007A
FLIN
SYSPW
R.REM
RL+
RL−
RR+
RR−
FL+
FL−
FR+
FR−
RLIN
BUP
CN701
B.REM
BACK UP
GND
RC,RD
R373
IC203
(2/2)
PA2028A
Q706
ACC
IC201
PML009A
VIDEO/AUDIO
SELECTOR
IC408
(2/2)
CXA2089Q
IC406
NJM2136V
Q702
ILL
Q704
TEL MUTE
ACC5
Q703
PARKING
CN104
TUNL
BGSENS
IC402
TA2050F
BCAM
IC404
NJM2136V
AUXV
AUXL
IC403
TA2050F
IC409
BA7623F
REARV
REARL
IC301
NJM4558V
IC407
NJM2136V
CN1502
CN1500
CN106
IPL+
IP-BUS
CORD
CN151
FU151
VD8
FU155
VDD33
MS3L
C CN1901
IC152
TC74VHC08FT
VIDEO5V
VIDEO OUT
SLVSTS
IC151
SM5304AV
IC153
TC7SET08FU
3V -> 5V
CHANGE
CN101(2/2)
IC405
NJM2136V
NAVI
IC401
TA2050F
ONSEI +
ONSEI-
GDIN
IC101
TC4S81F
HTXD
VDD
UC,EW
CN105
AV BUS
AVCOMP
IC410
NJM2136V
CN107
C CN1551
OPT
IC103
TC7SET08FU
CN501
(2/2)
POWERFL
FU902
I CN4461
1,2,3pin
CN502
(2/2)
I CN4461
29pin
CN802
CENTER
FAN
VD8
Q844
FU805
Q845
CN801
REAR
FAN
BUP
Q833
FU804
Q837
CN108


C DVD CORE UNIT (MS-3V1)
CN1902
MONI
CN1101
9
18
23
VSHF
Q1105
Q1104
Q1103
PICKUP UNIT(SERVICE)
A,B1-4,C,RF+,RF-
Q1101
Q1106
26
65LD
Q1102
Q1107
24
78LD
133
LPCO1
135
LPCO2
62,66
FG
DRIVER
IC1251
BA5985FM
FOP,FOM,TOP,TOM
FD,TD,MD,CRGDRV
9
LOM
10
LOP
CARRIGE MOTOR
CN1201
COP,COM
M
F
RELAY PCB
SPINDLE MOTOR
IC 1201
AN8471SAT1
10
148
AD1
76
DRY6
LOADING MOTOR
D
COMPOUND UNIT(A)
12cm
8cm
Disc sens
Disc sens
8cm
S1201
S1202
S1203
S1204
S1205
DSCSNS
CN1231
IC1231
TC7SZ125FU
4
1
VDD33
ELERGENCY LOAD
CLAMP SW
S1206
CLNP
E
COMPOUND UNIT(B)
CPU
IC1501
MN35104UB
NRST 68
IECOUT 181
XCSSR 47
XCSFM 33
2
IC1671
TC74LCX16373AFT
LATCH
25,48
4
IC1672
TC7SZ08FU
1
SDRAM
IC1651
M5M5V216ATP-70HI
A0-20,
ADT0-15
IC1601
PD6480B
FLASH MEMOR
A20
IC1570
K4S283232E-TC75
SDRAM
VCC15
LRCK 174
SRCK 175
4
EXADR18 39
1
IC1602
TC7SH86FU
2
DAC4OUT 163
92
OSCI
163
BECLK
CLOCK GENERATOR
3
15
IC1801
SM8707LV
14
13
1
2
IC1802
TC7WH157FU
6
5
39
43
42
CD/DVD
FSSW1
FSSW2
21
REV
25
XRES_M
IC1051
PE5401A


CN1903
XRES_M
9
CN1551
IECOUT
1
A CN107
2
48
4
IC1672
TC7SZ08FU
1
SDRAM
IC1651
M5M5V216ATP-70HI
2
1
IC1652
TC7SZ126FU
IC1601
PD6480B
FLASH MEMORY
CN1901
1
IC1002
R1130H501B
2
5
VD
10
5
IC1001
S-L2980A50MC-C7J
1
3
VCONTB
23
6
IC1003
LTC3411EMS
1,2
Q1002
VCONTA
25
VCC15
16
3
1
10
IC1851
PCM1742KE
6,7
VD
11
12
DC-DC CONVERTER
4
IC1602
TC7SH86FU
2
7
ADAC
Q1551
VIDEO OUT
39
3
8
IC1853
NJM2100V
1
Lch OUT
37
A CN151
2
21
25
1,2
REV
XRES_M
39
43
CD/DVD
FSSW1
IC1051
PE5401A
3,5
IC1852
NJM2140R
42
FSSW2
AMUTE,XRES_S,IRQPWR,STSCOMN,CMDCOMN
VDD33
21

3.2 OVERALL CONNECTION DIAGRAM

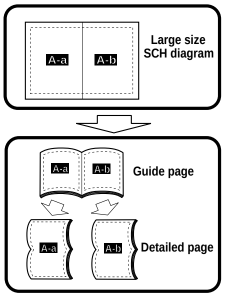

G TUNER UNIT
CN1405
CN1404
CN1406
MAIN
B RELAY PCB
CN1502
CN1500
CE1 DI DO DGND SL CK OSCGND ROMVDD RDSCK AGND NC LDET NC RDSDATA RDSLOCK RFGND CE2 NC RDSHSLK VTUN14
VGND3 BCAM #GND VGND2 AUXV AGND2 AUXR AUXL BGSENS NC BEGND TUNR TUNL VGND1 REARV AGND1 REARR REARL
REARL REARR AGND1 GDCVPP TUNL TUNR BEGND VPPONG AUXL AUXR AGND2 TXDATG REARV VGND1 AUXV VGND2 BCAM VGND3 BGSENS VPPON VPPSYS TXDAT RXDAT PRGON PRGSW #GND
CCR CCG CCB CCSYNC GNDSIG DVDVBS GNDDVD YS
CN103
CN104
POWER SUPPLY
FL- RL- FL+ RL+ FR- RR- FR+ RR+ P.B. VGND ACC B.REM ILL MUTE B.UP GND
CN701
A MOTHER PCB
CN108
DIGITAL OUTPUT
CN151
CN107
CN501
PGND PGND PGND GND GND GND GND GND (DTR) VD8 VD8 VD8 DDCONF VCC15(33) VCC15(33) VCC15(33) VCC15(33) VCC33 VCC33 SRVDD VDD33 AMUTE VCONTB NC VCONTA XRESET IRQPWR HSTCMD SLVSTS NC NC AGND AGND AGND Rch AGND Lch VGND VOUT VGND
OPT GND
INVPUL DIMDTY ICRES IICDA IICCK GNDV SCKE TOPOSD YSSTOP ANR2 ANG2 ANB2 BLNK DISPMUTE HRET VRET MVIPW LSEN LKYDT LDPDT PNLYV1 PNLXV1 PNLADY1 PNLADX1 PWRFL PWRFL PWRFL MOREM
C D E F DVD MECHANISM MODULE(MS-3V1)
CN4481
I MONITOR PCB
CN4451
CN4401
CN4801
KDT4 KDT3 GND GNDFL GNDFL INVPUL DIMDTY GNDILM KST2 KST1 VILLGB VILLA PWRFL PWRFL PWRFL
NC VGL NC GND STV1 U/D CPV GOE3 GOE2 GOE1 STV1 VDD3 VDD5 NC VGH NC VCOM GND GND CPH GND CX L/R STH1 GND VB VG VR STH2 GND
NC NC NC
CN5001
TOUCH PANEL
LCD PANEL
CN5002
H INVERTER PCB



AUXVIN
VGND
AUXLIN
AGND
AUXRIN
AGND
REARVOUT
VGND
REARLOUT
AGND
REARROUT
AGND
B.UPCAM IN
VGND
BG SENS
N1406
FM/AM ANTENNA
MAIN
CONNECTOR (NAVI)
CCR
CCG
CCB
CCSYNC
GNDSIG
DVDVBS
GNDDVD
YS
NC
CCAUL
CCAUR
GNDAU
ONSEI+
ONSEI-
REAUR
REAUL
GNDRAU
CCREM
DSEN
TVON
GION
MONON
VSW5
HTXD
HRXD
GNDD
CN101
IP BUS
BUS+
IPG
IPG
BUS-
IPG
IPL+
ASENBO
IPR+
IPR-
IPL-
CN106
AV BUS
COMPGND
COMP
IP SEL1
IP SEL2
AV ON
GND
REMIN
GND
CN105
CN801
REAR FAN
CN802
CENTER FAN
CN201
FL
FLGND
FR
FRGND
RL
RLGND
RR
RRGND
SWL
SWLGND
SWR
SWRGND
RCA CORD
CN601
DFLED
RESET
µGND
ILMGND
RDT1
REAROFF
RDT0
REARON
REM
ILMG
ILMA
DSENS2
SWVDD
KEY2
KEY1
KEY0
DSENS1
CN5901
M
PANEL PCB
CN5902
CN501
CN502
PNLYV1
PNLXV1
PNLADY1
PNLADX1
PWRFL
PWRFL
PWRFL
MOREM
GNDFL
GNDFL
GNDFL
GNDVI
GNDVI
PWRVI
PWRVI
MONI5V
EPRSK
EPRCS
EPRDO
EPRDI
EPR3V
YS
GNDSIG
CSYNC
GNDSIG
ANR1
ANG1
ANB1
GNDV
MONVBS
ILMG
ILMA
LCDBL
GLCDBL
BUP
BUP
BUP
GND
GND
DGND
NC
VDD
SENSPW
PUSHSW
ANGLOSW
MTRSEL
MTR1
MTR2
MTRPW
MTRS
LIFTPUL
ANGLEIN
N MAIN UNIT
O SW UNIT
P VOLUME UNIT
CN3801
µGND
ILMGND
RDTA
REAROFF
RDTB
REARON
REM
ILMG
ILMA
DSENOUT
SWVDD
KEY2
KEY1
KEY0
DSENS1
CN5501
L GRILLE PCB
CN4461
C4201
GILL
KDT1
VBILL
VILLA
VILLGB
KDT2
KST1
KST2
VSW5
LSEN
GV5W
J
UPPER PCB
CN4301
CN4311
CN4701
STH2
GND
NC
NC
NC
COM1
COM2
COM3
COM4
SEG1
SEG2
SEG3
SEG4
SEG5
SEG6
SEG7
SEG8
SEG9
SEG10
SEG11
SEG12
SEG13
SEG14
SEG15
SEG16
SEG17
SEG18
SEG19
SEG20
SEG21
SEG22
SEG23
SEG24
SEG25
SEG26
SEG27
SEG28
SEG29
SEG30
SEG31
SEG32
SEG33
SEG34
SEG35
SEG36
SEG37
SEG38
SEG39
SEG40
NC
NC
NC
LCD
CN4312
K SENSE PCB

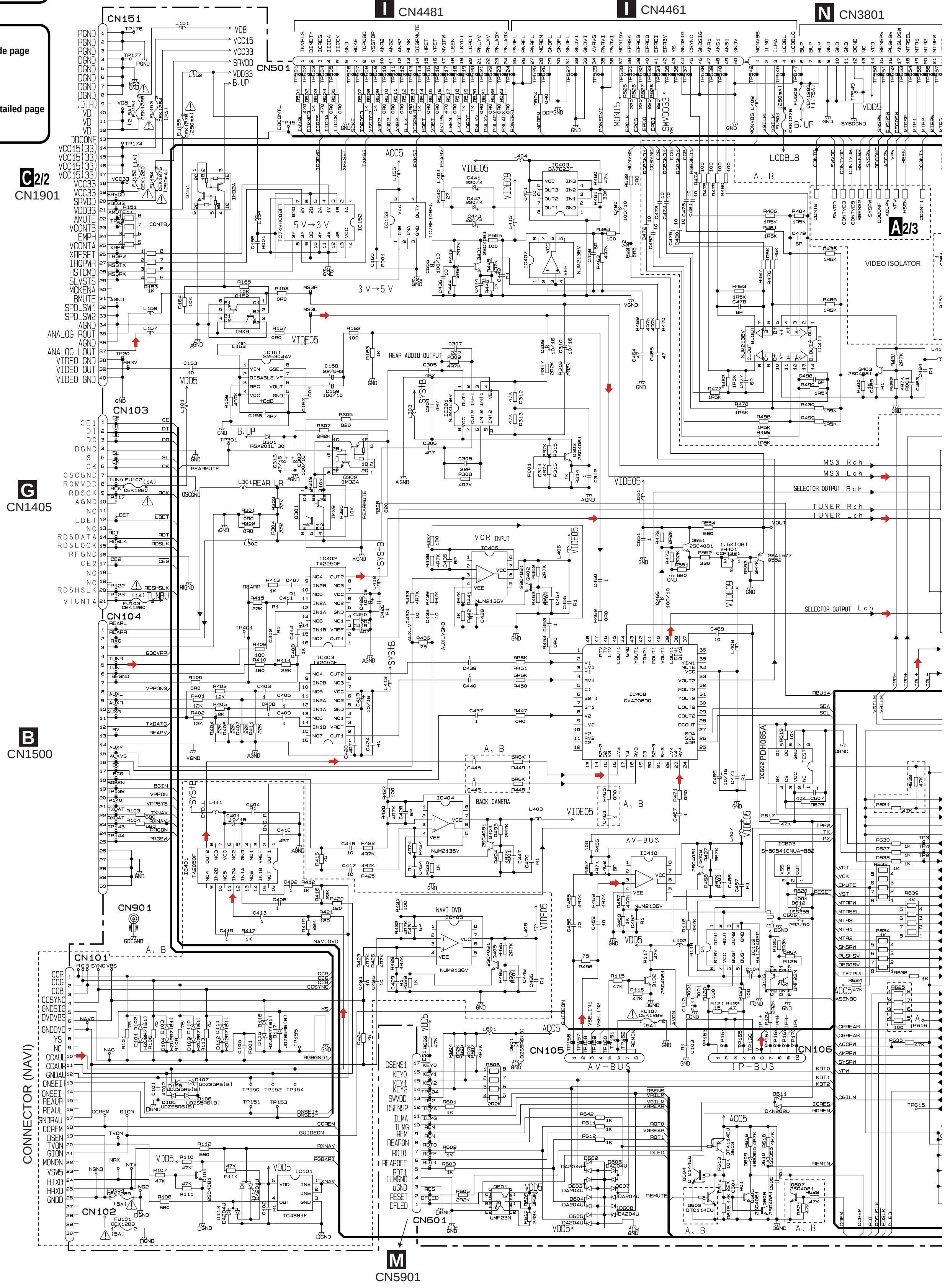
3.3 MOTHER(1/3) PCB(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



A-a
A-b
Large size SCH diagram
Guide page
Detailed page

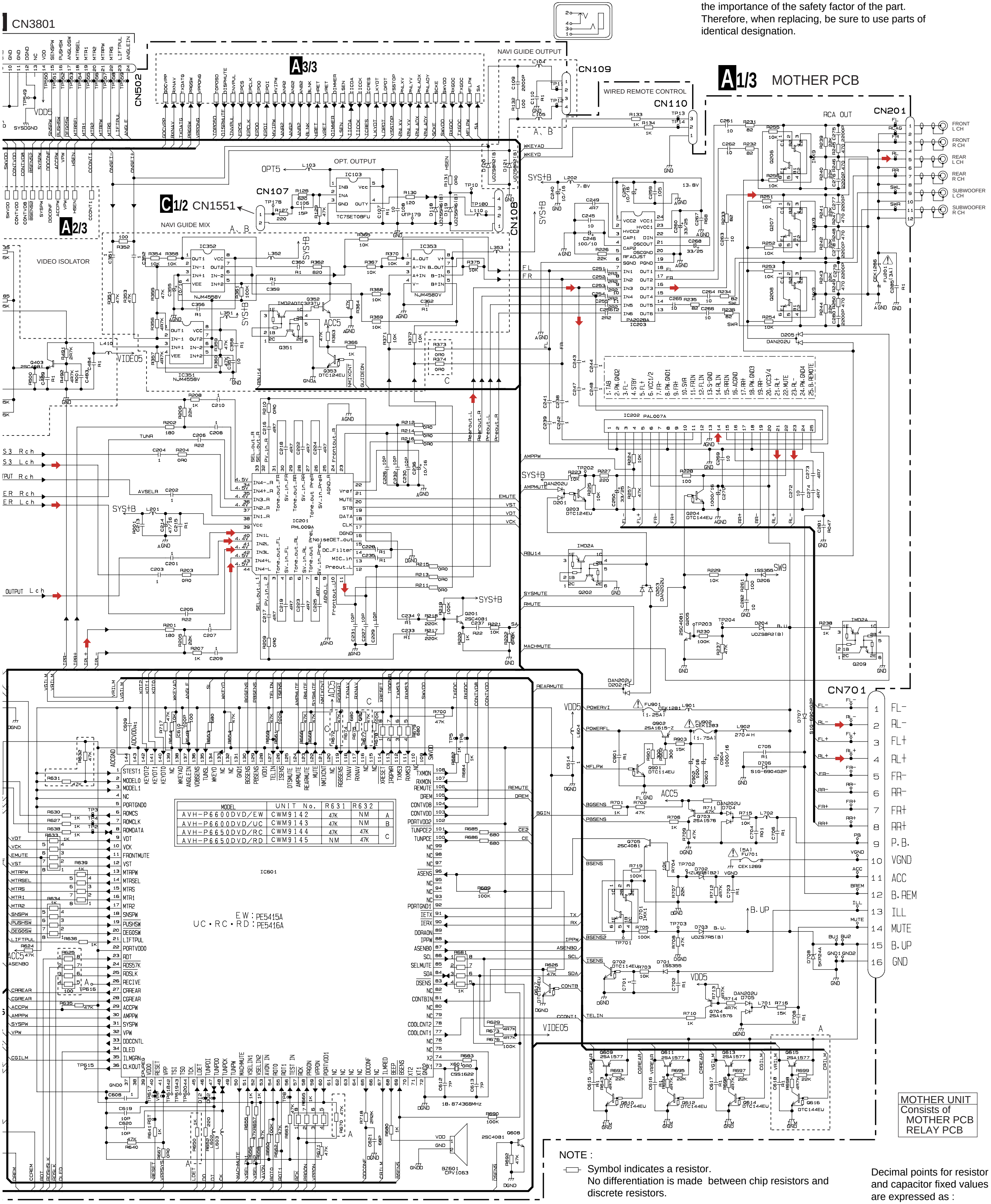
A-a 1/3



I CN4481
I CN4461
N CN3801
CN151
CN501
C 2/2 CN1901
CN103
G CN1405
CN104
B CN1500
CN901
CN101
CN102
CONNECTOR (NAVI)
CN105
CN106
CN601
M CN5901
A 2/3
VIDEO ISOLATOR
REAR AUDIO OUTPUT
VCR INPUT
BACK CAMERA
NAVI DVD
AV-BUS
IP-BUS
3 V→5 V
5 V→3 V
IC151 BA6304AV
IC152 TC74VHC08FT
IC153 TC7SET08FU
IC301 NJM2059V
IC402 TA2050F
IC403 TA2050F
IC401 TA2050F
IC404 NJM2136V
IC405 NJM2136V
IC407 NJM2136V
IC408 CXA2089Q
IC409 BA7623F
IC410 NJM2136V
IC411 NJM2136V
IC601 TC4S81F
IC602 PDH085A
IC603 S-80841CNUA-BB2
MS3 Rch
MS3 Lch
SELECTOR OUTPUT Rch
TUNER Rch
TUNER Lch
SELECTOR OUTPUT Lch
VIDEO5
VIDEO9
VDD5
ACC5
SYS+B
PGND
VD8
VCC15
VCC33
SRVDD
VDD33
B.UP

A 1/3

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.


CN3801
A 3/3
NAVI GUIDE OUTPUT
CN109
WIRED REMOTE CONTROL
CN110
A 1/3 MOTHER PCB
CN201
RCA OUT
FRONT L CH
FRONT R CH
REAR L CH
REAR R CH
SUBWOOFER L CH
SUBWOOFER R CH
OPT. OUTPUT
OPT5
CN107
IC103
TC7SET08FU
C 1/2 CN1551
NAVI GUIDE MIX
CN108
A 2/3
VIDEO ISOLATOR
IC352 NJM4558V
IC353 NJM4580V
IC351 NJM4558V
IC203 PA2028A
IC202 PAL007A
IC201 PML009A
IC601
EW : PE5415A
UC・RC・RD : PE5416A
MODEL | UNIT No. | R631 | R632
AVH-P6600DVD/EW | CWM9142 | 47K | NM | A
AVH-P6600DVD/UC | CWM9143 | 47K | NM | B
AVH-P6650DVD/RC | CWM9144 | 47K | 47K | C
AVH-P6650DVD/RD | CWM9145 | NM | 47K | C
CN701
FL- RL- FL+ RL+ FR- RR- FR+ RR+ P.B. VGND ACC B.REM ILL MUTE B.UP GND
VDD5
VIDEO5
SYS+B
ACC5
MOTHER UNIT
Consists of
MOTHER PCB
RELAY PCB

NOTE :

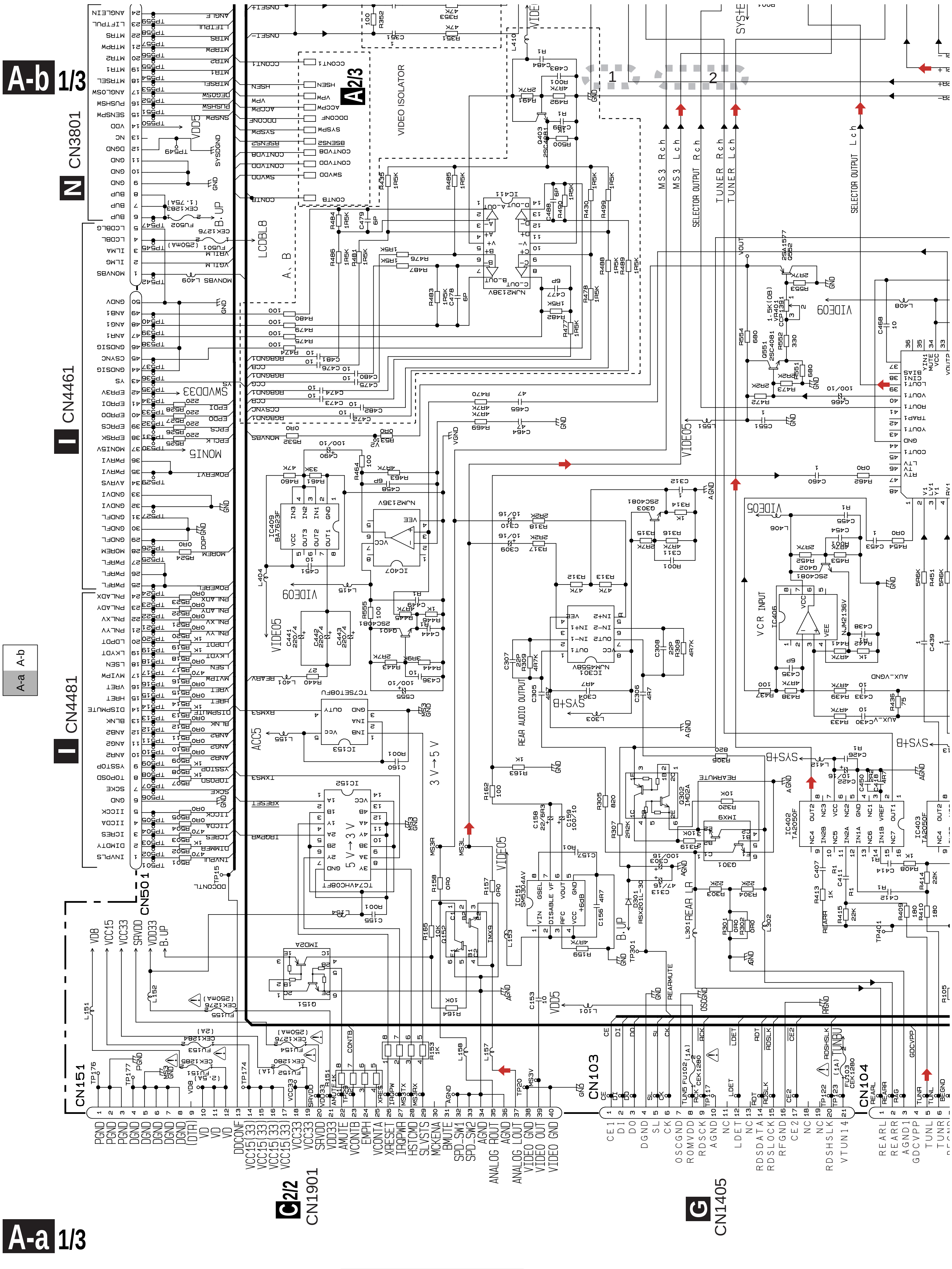
▭ Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.

⊣⊢ Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022

1 2 3 4

A



A-b 1/3
N CN3801
I CN4461
I CN4481
CN501
A2/3
VIDEO ISOLATOR
SELECTOR OUTPUT
TUNER Rch
TUNER Lch
MS3 Rch
MS3 Lch
VIDEO5
VIDEO9
VCR INPUT
REAR AUDIO OUTPUT
SYS+B
B+SYS
ACC5
3V→5V
5V→3V
IC152 TC74VHC08FT
IC153 TC7SET08FU
IC151 SM5304AV
IC301 NJM4558V
IC407 NJM2136V
IC409 BA7623F
IC411 NJM2136V
IC402 TA2050F
IC403 TA2050F
IC406 NJM2136V
Q151 IMD2A
Q152 IMX9
Q302 IMD2A
Q301 IMX9
CN151
C2/2 CN1901
CN103
G CN1405
CN104
A-a 1/3

B

C

D

E

F

1 2 3 4

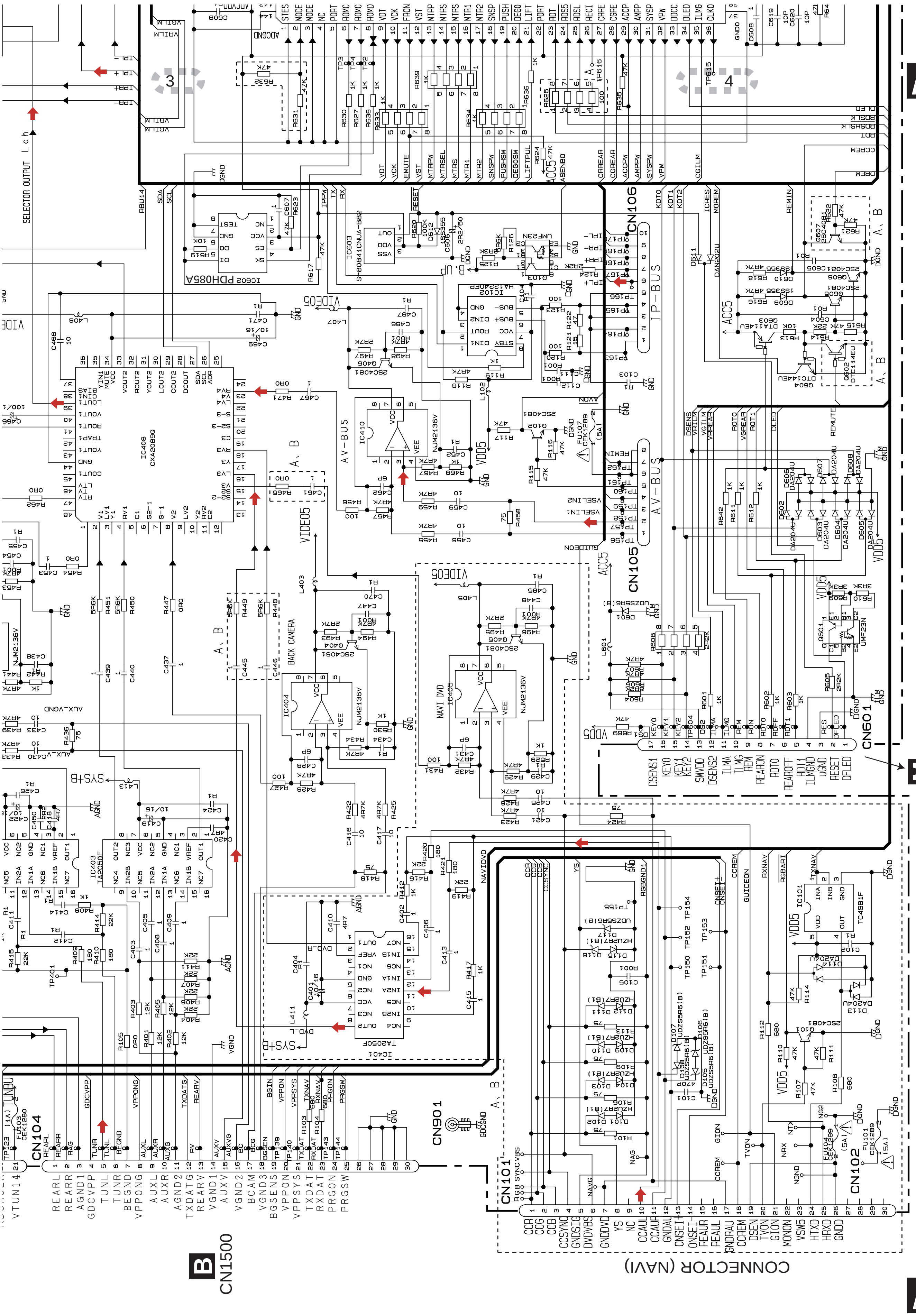
A

A-b 1/3

B

C

D

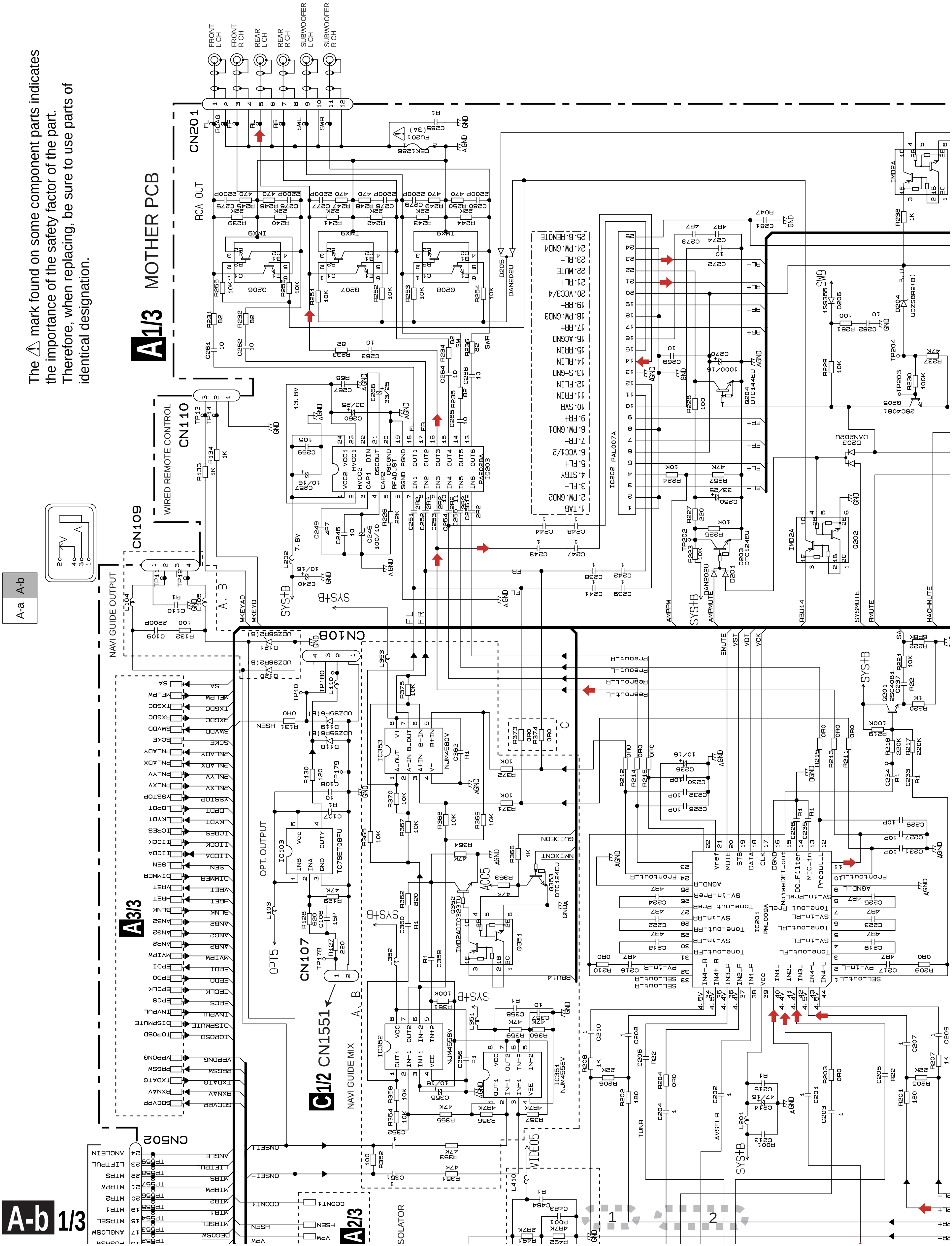

IC602 PDH085A
IC603 S-80841CNUA-B82
IC102 HA12240FP
IC408 CXA2089Q
IC410 NJM2136V
IC404 NJM2136V
IC405 NJM2136V
IC403 TA2050F
IC401 TA2050F
IC101 TC4S81F
CN106 IP-BUS
CN105 AV-BUS
CN601
CN101
CN102
CN104
CN901
M CN5901
B CN1500
CONNECTOR (NAVI)
A-b
A-a
SELECTOR OUTPUT L ch
VIDEO5
BACK CAMERA
NAVI DVD
AUX-VGND
SYS+B
ACC5
VDD5
A, B

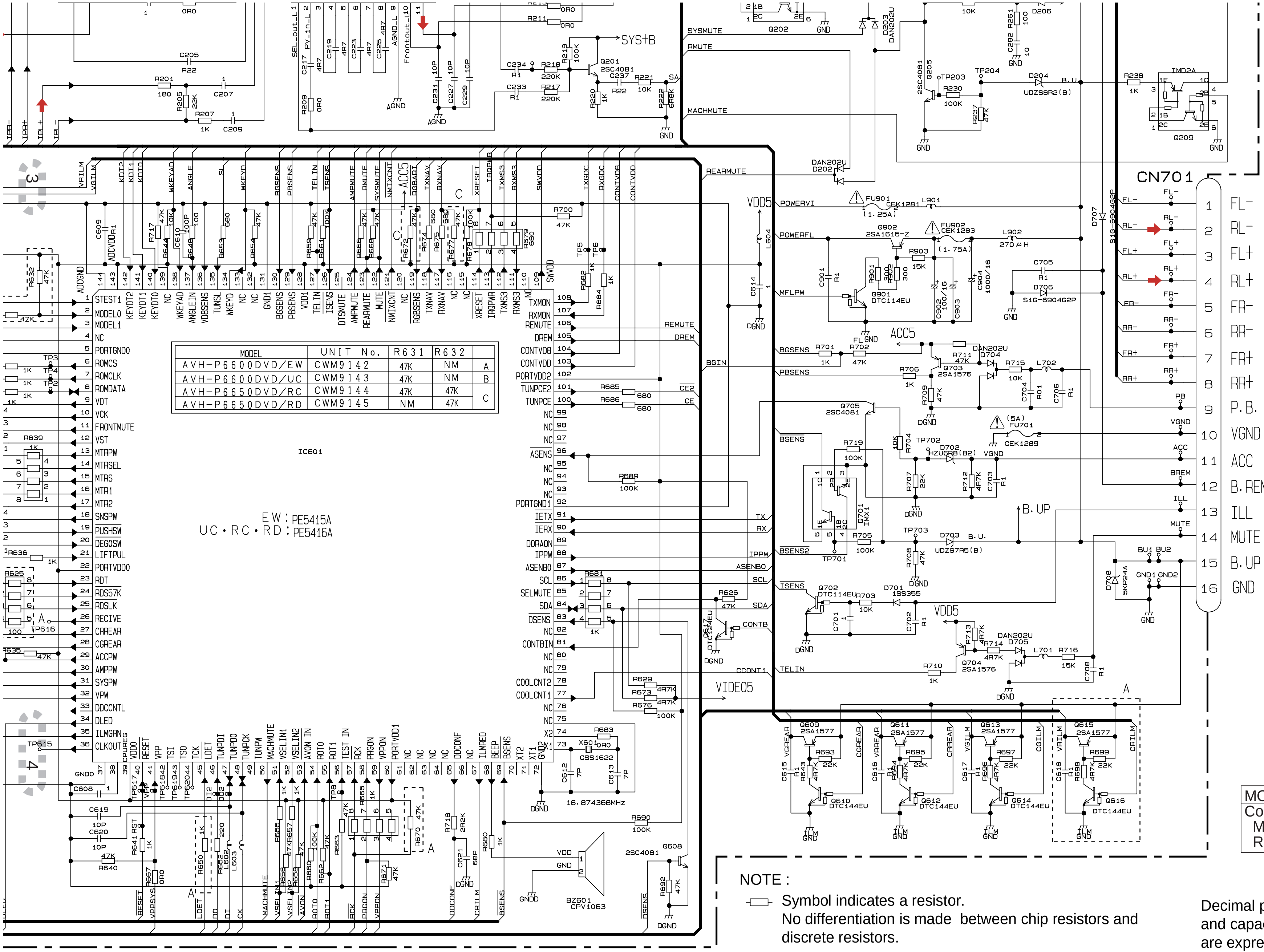
E

F

A-a 1/3

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.


A 1/3 MOTHER PCB
CN201
RCA OUT
FRONT L CH
FRONT R CH
REAR L CH
REAR R CH
SUBWOOFER L CH
SUBWOOFER R CH
CN110 WIRED REMOTE CONTROL
CN109
NAVI GUIDE OUTPUT
A-a
A-b
IC202 PAL007A
IC203 PA2028A
IC201 PML009A
CN108
CN107 OPT. OUTPUT
IC103 TC7SET08FU
IC353 NJM4580V
IC352 NJM4558V
IC351 NJM4558V
C 1/2 CN1551 NAVI GUIDE MIX
A 3/3
CN502
A 2/3 ISOLATOR
A-b 1/3


CN701
1 FL−
2 RL−
3 FL+
4 RL+
5 FR−
6 RR−
7 FR+
8 RR+
9 P.B.
10 VGND
11 ACC
12 B.REM
13 ILL
14 MUTE
15 B.UP
16 GND
IC601
EW : PE5415A
UC・RC・RD : PE5416A
VDD5
ACC5
B.UP
VIDEO5
SYS+B
FU901 CEK1281 (1.25A)
FU902 CEK1283 (1.75A)
FU701 CEK1289 (5A)
BZ601 CPV1063
X601 CSS1622 18.874368MHz
Q201 2SC4081
Q205 2SC4081
Q209 IMD2A
Q609 2SA1577
Q610 DTC144EU
Q611 2SA1577
Q612 DTC144EU
Q613 2SA1577
Q614 DTC144EU
Q615 2SA1577
Q616 DTC144EU
Q608 2SC4081
Q701 IMX1
Q702 DTC114EU
Q703 2SA1576
Q704 2SA1576
Q705 2SC4081
Q901 DTC114EU
Q902 2SA1615-Z
Q617 DTC124EU

MODEL	UNIT No.	R631	R632	
AVH-P6600DVD/EW	CWM9142	47K	NM	A
AVH-P6600DVD/UC	CWM9143	47K	NM	B
AVH-P6650DVD/RC	CWM9144	47K	47K	C
AVH-P6650DVD/RD	CWM9145	NM	47K	

MOTHER UNIT
Consists of
MOTHER PCB
RELAY PCB

NOTE :

▭ Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.

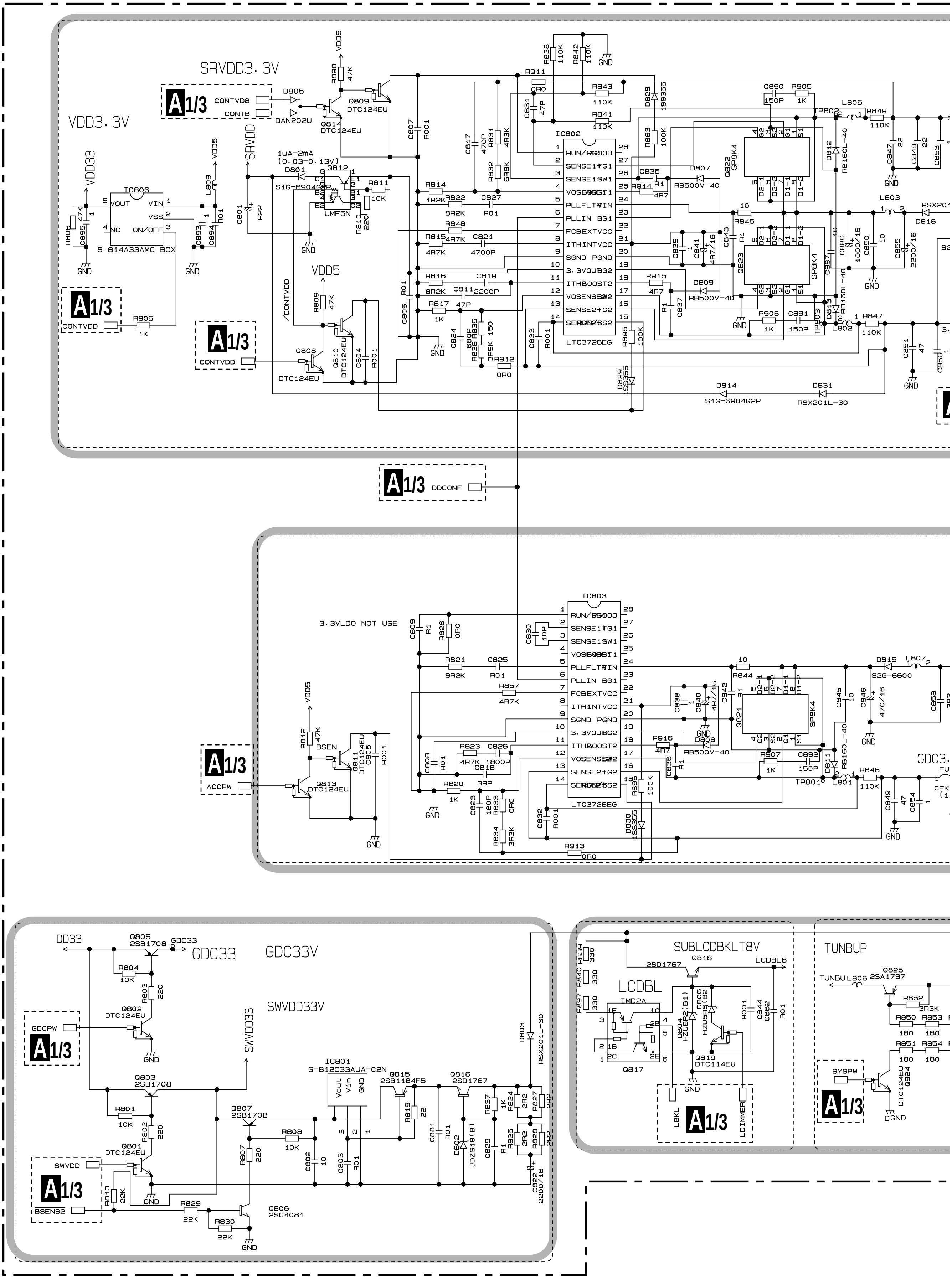
⊣⊢ Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022

A-a A-b

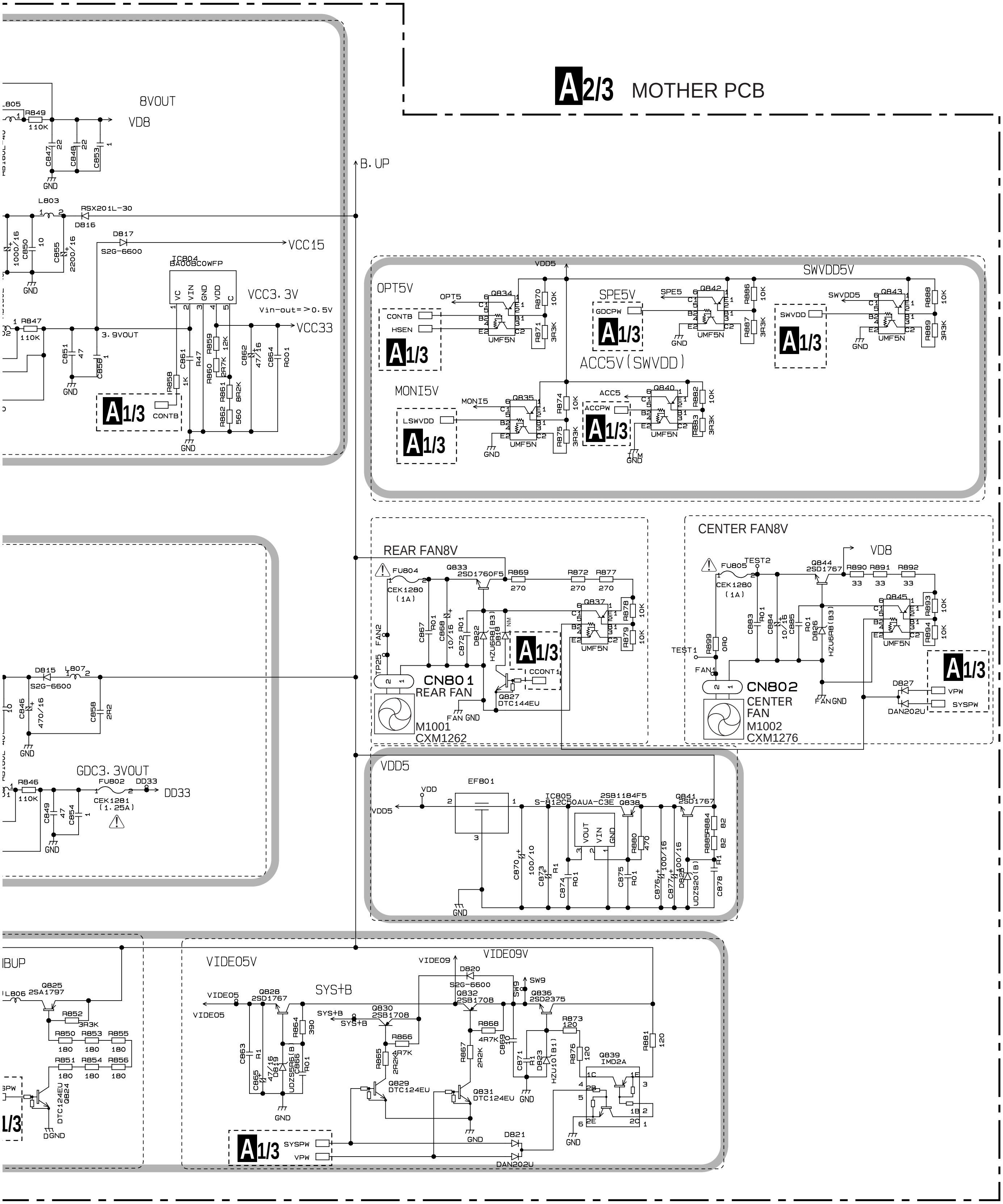
A-b 1/3

3.4 MOTHER(2/3) PCB


A
B
C
D
E
F
SRVDD3.3V
VDD3.3V
A1/3
CONTVDB
CONTB
D805
DAN202U
Q809
DTC124EU
Q814
DTC124EU
R898
47K
VDD5
C807
R001
R838
110K
R842
110K
GND
R911
0R0
C831
47P
R843
110K
R841
110K
D828
1SS355
R863
100K
C890
150P
R905
1K
L805
TP802
R849
110K
C847
22
C848
22
C853
IC802
LTC3728EG
RUN/SS1
SENSE1+
SENSE1-
VOSENSE1
PLLFLTR
PLLIN
FCB
ITH1
SGND
3.3VOUT
ITH2
VOSENSE2
SENSE2+
SENSE2-
PGOOD
TG1
SW1
BOOST1
VIN
BG1
EXTVCC
INTVCC
PGND
BG2
BOOST2
SW2
TG2
RUN/SS2
C817
470P
R831
4R3K
R832
6R8K
R814
1R2K
R822
8R2K
C827
R01
R848
4R7K
R815
4R7K
C821
4700P
R816
8R2K
C819
2200P
C811
47P
R817
1K
C824
680P
R835
150
R836
3R9K
R912
0R0
C833
R001
R895
100K
D829
1SS355
C835
R1
R914
4R7
D807
RB500V-40
Q822
SP8K4
D812
RB160L-40
L803
RSX201
D816
R845
10
C841
4R7/16
C839
C843
R1
Q823
SP8K4
C887
10
C886
1000/16
C850
10
C855
2200/16
R915
4R7
C837
R1
D809
RB500V-40
D813
RB160L-40
TP803
R906
1K
C891
150P
L802
R847
110K
C851
47
C858
1
D814
S1G-6904G2P
D831
RSX201L-30
VDD33
IC806
S-814A33AMC-BCX
VOUT
VIN
VSS
NC
ON/OFF
R806
47K
C895
1
C893
C894
1
R01
L809
SRVDD
1uA-2mA
(0.03-0.13V)
D801
S1G-6904G2P
Q812
UMF5N
R811
10K
R810
220
C801
R22
R805
1K
CONTVDD
/CONTVDD
R809
47K
Q810
DTC124EU
Q808
DTC124EU
C804
R001
C806
R01
DDCONF
IC803
LTC3728EG
3.3VLDO NOT USE
C809
R1
R826
0R0
C830
10P
R821
8R2K
C825
R01
R857
4R7K
R823
4R7K
C826
1800P
C818
39P
R820
1K
C808
R01
C823
180P
R833
0R0
R834
3R3K
C832
R001
R896
100K
D830
1SS355
R913
0R0
R844
10
C838
C840
4R7/16
C842
R1
Q821
SP8K4
R916
4R7
C836
R1
D808
RB500V-40
R907
1K
C892
150P
TP801
D811
RB160L-40
L801
R846
110K
C845
10
C846
470/16
D815
S2G-6600
L807
C858
GDC3.
C849
47
C854
1
R812
47K
BSEN
Q811
DTC124EU
C805
R001
Q813
DTC124EU
ACCPW
DD33
Q805
2SB1708
GDC33
GDC33V
R804
10K
R803
220
Q802
DTC124EU
GDCPW
SWVDD33V
SWVDD33
Q803
2SB1708
R801
10K
R802
220
Q801
DTC124EU
SWVDD
BSENS2
R813
22K
R829
22K
R830
22K
Q806
2SC4081
Q807
2SB1708
R807
220
R808
10K
C802
10
C803
R01
IC801
S-812C33AUA-C2N
Vout
Vin
Q815
2SB1184F5
R819
22
Q816
2SD1767
C881
R01
D802
UDZS18(B)
R837
1K
R824
2R2
R827
2R2
C829
R1
R825
2R2
R828
2R2
C822
2200/16
D803
RSX201L-30
SUBLCDBKLT8V
R839
330
R840
330
R897
330
2SD1767
Q818
LCDBL8
LCDBL
IMD2A
Q817
D804
HZU8R2(B1)
D806
HZU5R6(B2)
Q819
DTC114EU
C844
R001
C882
R01
LBKL
LDIMMER
TUNBUP
TUNBU
L806
Q825
2SA1797
R852
3R3K
R850
180
R853
R851
180
R854
180
SYSPW
Q824
DTC124EU
DGND

A2/3

A2/3 MOTHER PCB



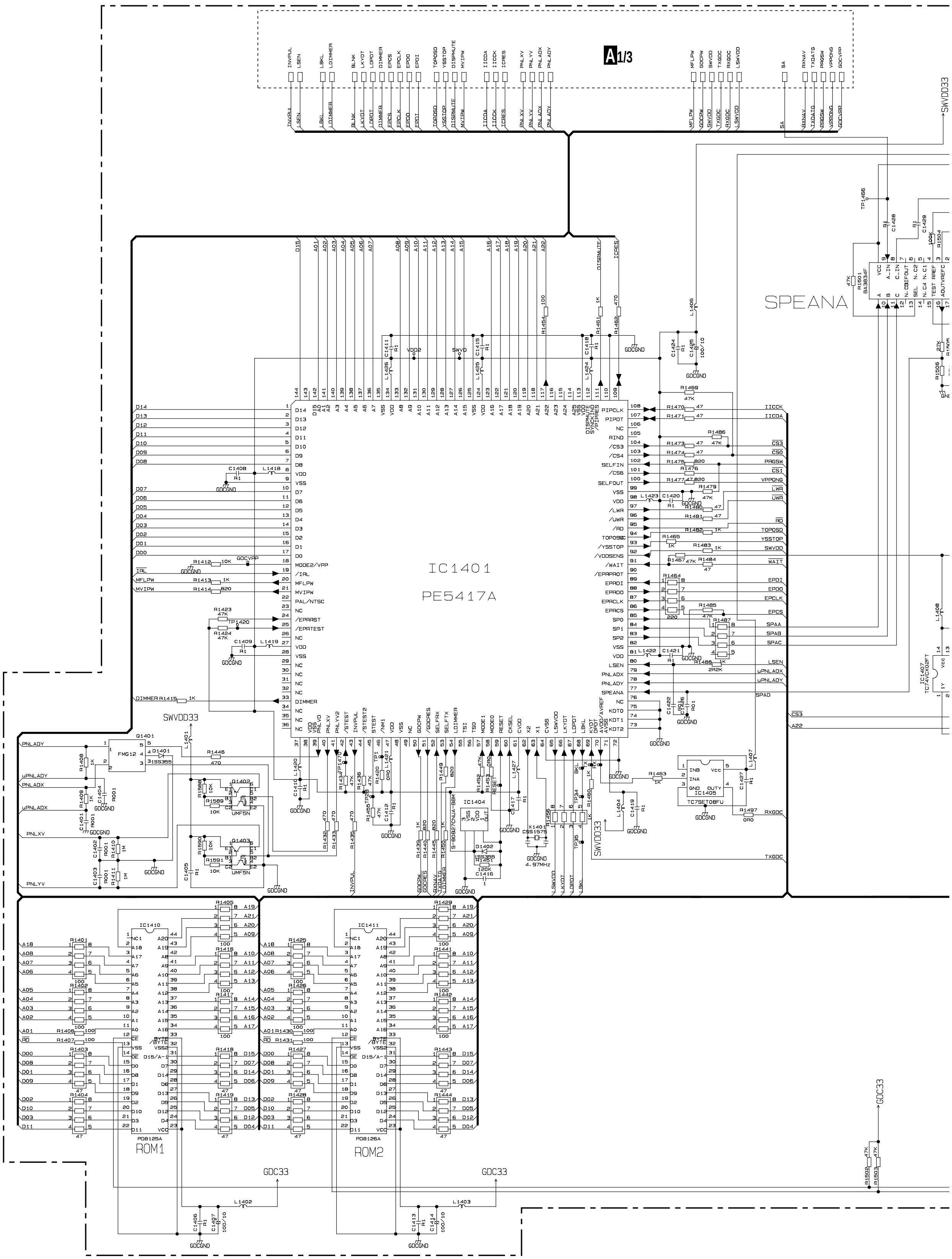
A
B
C
D
E
F
8VOUT
VD8
L805
R849
110K
C847 22
C848 22
C853 1
GND
B.UP
L803
RSX201L-30
D816
D817
S2G-6600
VCC15
C850 10
C855 2200/16
1000/16
IC804
BA00BC0WFP
VC VIN GND VDD C
VCC3.3V
Vin-out=>0.5V
VCC33
R847
110K
3.9VOUT
C851 47
C859 1
C861 1K
R47
R858
R859 12K
R860 4R7K
R861 8R2K
R862 560
C862 47/16
C864 R001
A1/3
CONTB
VDD5
OPT5V
OPT5
CONTB
HSEN
Q834
UMF5N
R870 10K
R871 3R3K
SPE5V
SPE5
GDCPW
Q842
R886 10K
R887 3R3K
SWVDD5V
SWVDD5
SWVDD
Q843
R888 10K
R889 3R3K
ACC5V(SWVDD)
MONI5V
MONI5
LSWVDD
Q835
R874 10K
R875 3R3K
ACC5
ACCPW
Q840
R882 10K
R883 3R3K
REAR FAN8V
FU804
CEK1280 (1A)
Q833
2SD1760F5
R869 270
R872 270
R877 270
C867 R01
C868 10/16
C872 R01
D822
HZU6R8(B3)
D818
NM
Q837
R878 10K
R879 10K
CCONT1
FAN2
TP25
CN801
REAR FAN
Q827
DTC144EU
FAN GND
M1001
CXM1262
CENTER FAN8V
VD8
TEST2
FU805
CEK1280 (1A)
Q844
2SD1767
R890 33
R891 33
R892 33
Q845
R893 10K
R894 10K
C883 R01
C884 10/16
C885 R01
D826
HZU6R8(B3)
R899 0R0
TEST1
FAN1
CN802
CENTER FAN
FAN GND
D827
VPW
SYSPW
DAN202U
M1002
CXM1276
D815
L807
S2G-6600
C846 470/16
C858 2R2
GDC3.3VOUT
R846 110K
FU802
DD33
CEK1281 (1.25A)
C849 47
C854 1
DD33
VDD5
EF801
VDD
IC805
S-812C50AUA-C3E
2SB1184F5
Q838
Q841
2SD1767
VOUT VIN GND
R880 470
R884 82
R885 82
C870 100/10
C873 R1
C874 R01
C875 R01
C876 100/16
C877 100/16
D824
UDZS20(B)
C878 R1
GND
IBUP
L806
Q825
2SA1797
R852 3R3K
R850 180
R853 180
R855 180
R851 180
R854 180
R856 180
SPW
Q824
DTC124EU
DGND
VIDEO5V
VIDEO5
Q828
2SD1767
R864 390
C863 R1
C865 47/16
D819 UDZS5R6(B)
C866 R01
SYS+B
Q830
2SB1708
R866 4R7K
R865 2R2K
Q829
DTC124EU
VIDEO9V
VIDEO9
D820
S2G-6600
Q832
2SB1708
SW9
R868 4R7K
R867 2R2K
C869 R01
Q831
DTC124EU
Q836
2SD2375
R873 120
C871 R1
D823 HZU10(B1)
R876 120
Q839
IMD2A
R881 120
GND
SYSPW
VPW
D821
DAN202U

(pill-shaped mark) : The power supply is shown with the marked box.

A2/3

3.5 MOTHER(3/3) PCB(GUIDE PAGE)

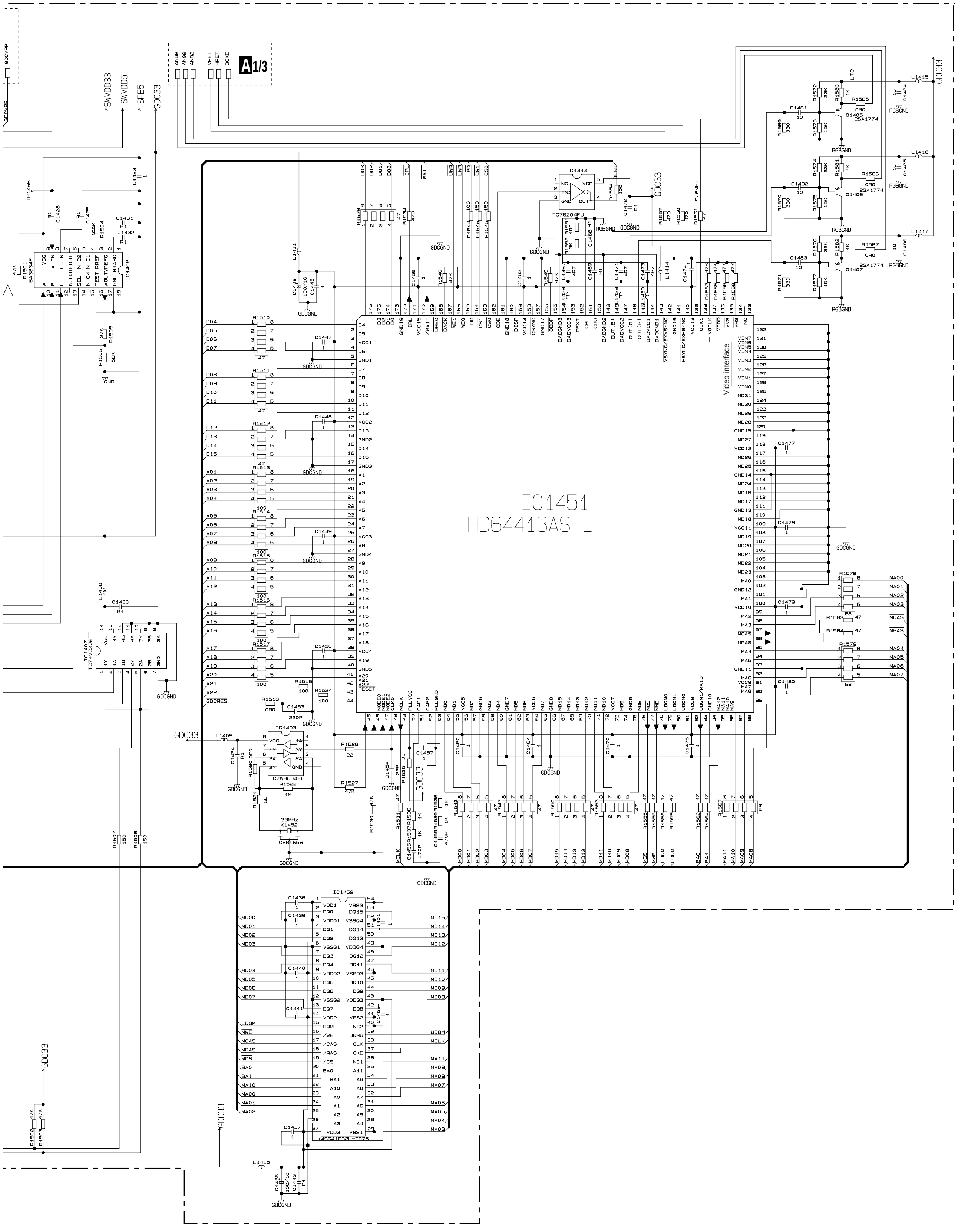
A-a 3/3


A1/3
SWVDD33
SPEANA
IC1401
PE5417A
IC1501
BA3834F
IC1402
TC74VCX02FT
Q1401
FMG12
D1401
1SS355
Q1402
UMF5N
Q1403
UMF5N
IC1404
S-80827CNUA-B8M
X1401
CSS1575
4.97MHz
IC1405
TC7SET08FU
IC1410
PD8125A
ROM1
IC1411
PD8126A
ROM2
GDC33
GDCGND
L1402
L1403
GDCVPP
TP1420
TP1466

A 3/3

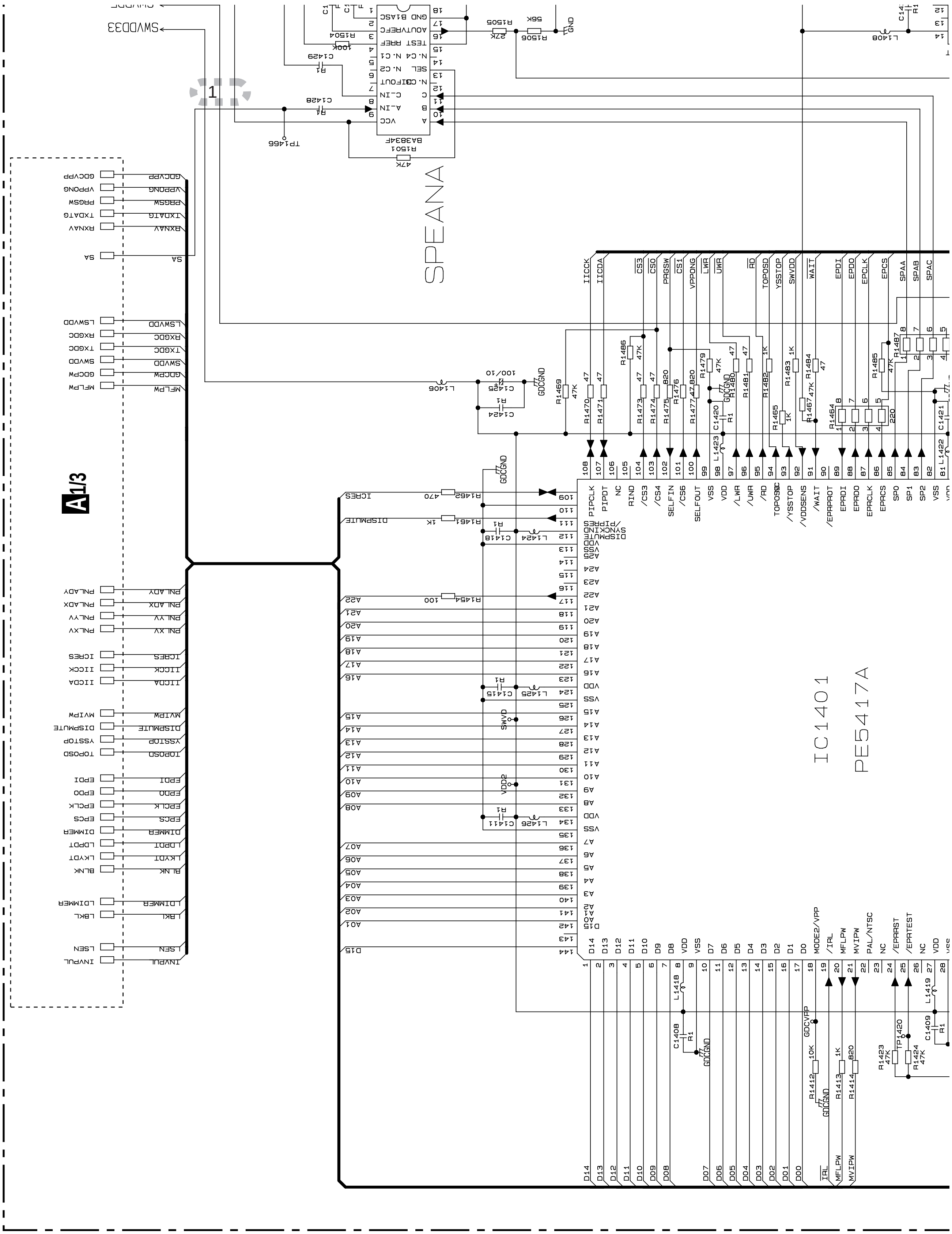
A-b 3/3

A 3/3 MOTHER PCB


A 1/3
ANB2
ANR2
ANG2
VRET
HRET
SCKE
SWVDD33
SWVDD5
SPE5
GDC33
GDCVPP
TP1466
IC1501
BA3834F
IC1408
IC1407
TC74VCX02FT
IC1414
TC7SZ04FU
IC1451
HD64413ASFI
Video interface
IC1403
TC7WHU04FU
X1452
33MHz
CSS1656
IC1452
K4S641632H-TC75
Q1405
Q1406
Q1407
2SA1774
L1415
L1416
L1417
L1409
L1410
L1411
GDCGND
RGBGND
GDCRES
9.6MHz
MA00
MA01
MA02
MA03
MA04
MA05
MA06
MA07
MCAS
MRAS
MCS
MWE
LDQM
UDQM
MCLK
BA0
BA1
MA08
MA09
MA10
MA11
MD00
MD01
MD02
MD03
MD04
MD05
MD06
MD07
MD08
MD09
MD10
MD11
MD12
MD13
MD14
MD15

A 3/3

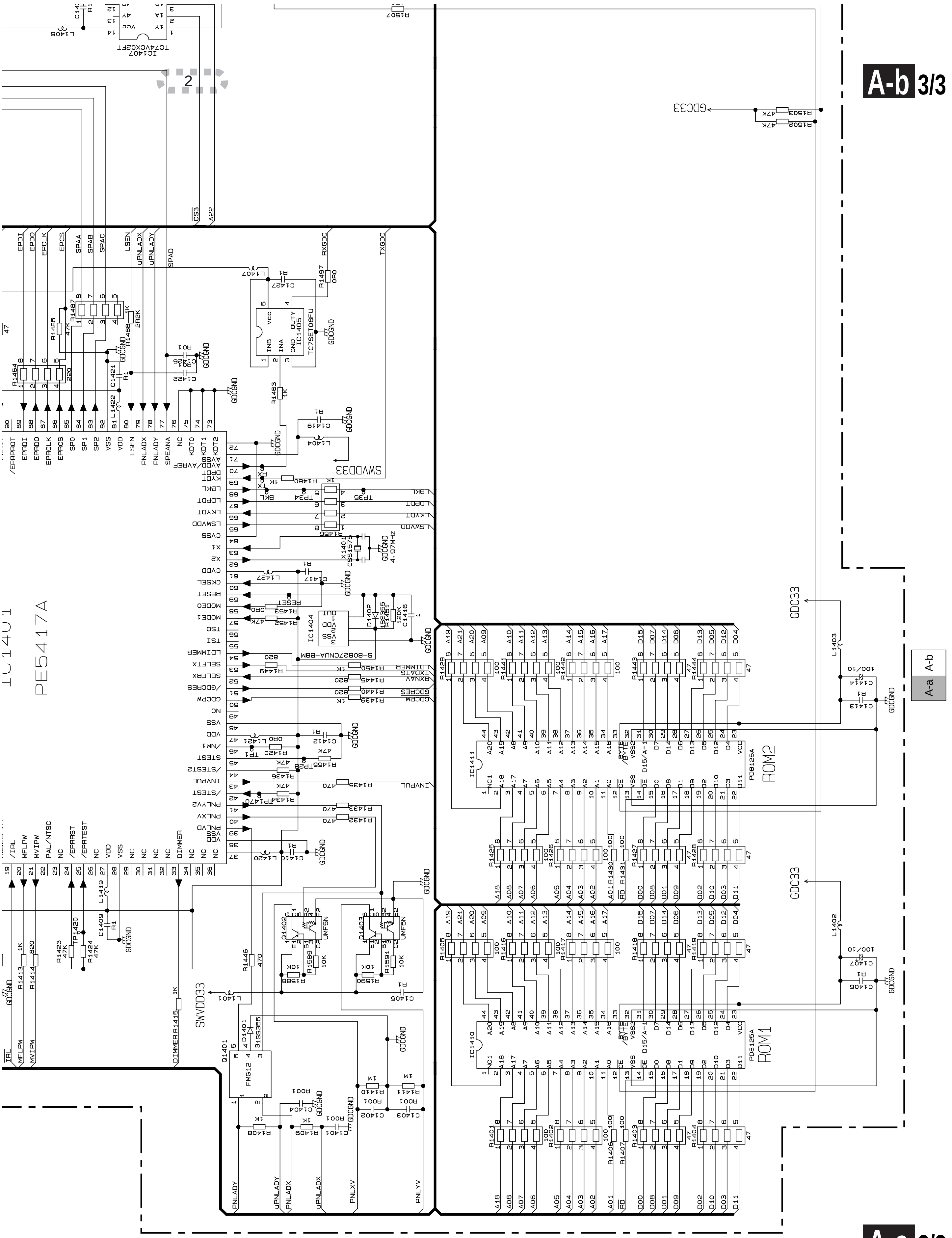
A-b 3/3


SWVDD33
1
BA3834F
R1501
GND B1ASC
AOUTVREF
TEST RREF
N.C4 N.C1
SEL N.C2
N.C3 DIFOUT
C-IN
A-IN
VCC
R1504 100K
R1505 27K
R1506 56K
GND
C1429
C1428
TP1466
47K
L1408
SPEANA
GDCVPP
VPPONG
PRGSW
TXDATG
RXNAV
SA
LSWVDD
RXGDC
TXGDC
SWVDD
GDCPW
MFLPW
A1/3
PNLADY
PNLADX
PNLYV
PNLXV
ICRES
IICCK
IICDA
MVIPW
DISPMUTE
YSSTOP
TOPOSD
EPDI
EPDO
EPCLK
EPCS
DIMMER
LDPDT
LKYDT
BLNK
LDIMMER
LBKL
LSEN
INVPUL
L1406
C1425 100/10
C1424
GDCGND
R1462 470
R1461 1K
C1418
L1424
R1454 100
C1415
L1425
SWVD
VDD2
C1411
L1426
A22 A21 A20 A19 A18 A17 A16 A15 A14 A13 A12 A11 A10 A09 A08 A07 A06 A05 A04 A03 A02 A01 D15
IICCK IICDA CS3 CS0 PRGSW CS1 VPPONG LWR UWR RD TOPOSD YSSTOP SWVDD WAIT EPDI EPDO EPCLK EPCS SPAA SPAB SPAC
R1469 47K
R1470 47
R1471 47
R1486 47K
R1473 47
R1474 47
R1475 820
R1476
R1477 47
R1479 47K
R1480 47
R1481 47
R1482 1K
R1483 1K
R1484 47
R1465 1K
R1467 47K
R1464
R1485 47K
R1487
220
C1420
L1423
C1421
L1422
PIPCLK PIPDT NC RIND /CS3 /CS4 SELFIN /CS6 SELFOUT VSS VDD /LWR /UWR /RD TOPOSD /YSSTOP /VDDSENS /WAIT /EPRPROT EPRDI EPRDO EPRCLK EPRCS SP0 SP1 SP2 VSS
/PIPRES SYNCKIND DISPMUTE VDD VSS
A25 A24 A23 A22 A21 A20 A19 A18 A17 A16 VDD VSS A15 A14 A13 A12 A11 A10 A9 A8 VDD VSS A7 A6 A5 A4 A3 A2 A1 A0 D15
IC1401
PE5417A
D14 D13 D12 D11 D10 D9 D8 VDD VSS D7 D6 D5 D4 D3 D2 D1 D0 MODE2/VPP /IRL MFLPW MVIPW PAL/NTSC NC /EPRRST /EPRTEST NC VDD
L1418
C1408
GDCVPP
R1412 10K
R1413 1K
R1414 820
R1423 47K
TP1420
R1424 47K
C1409
L1419
D14 D13 D12 D11 D10 D09 D08 D07 D06 D05 D04 D03 D02 D01 D00 IRL MFLPW MVIPW

A-b
A-a

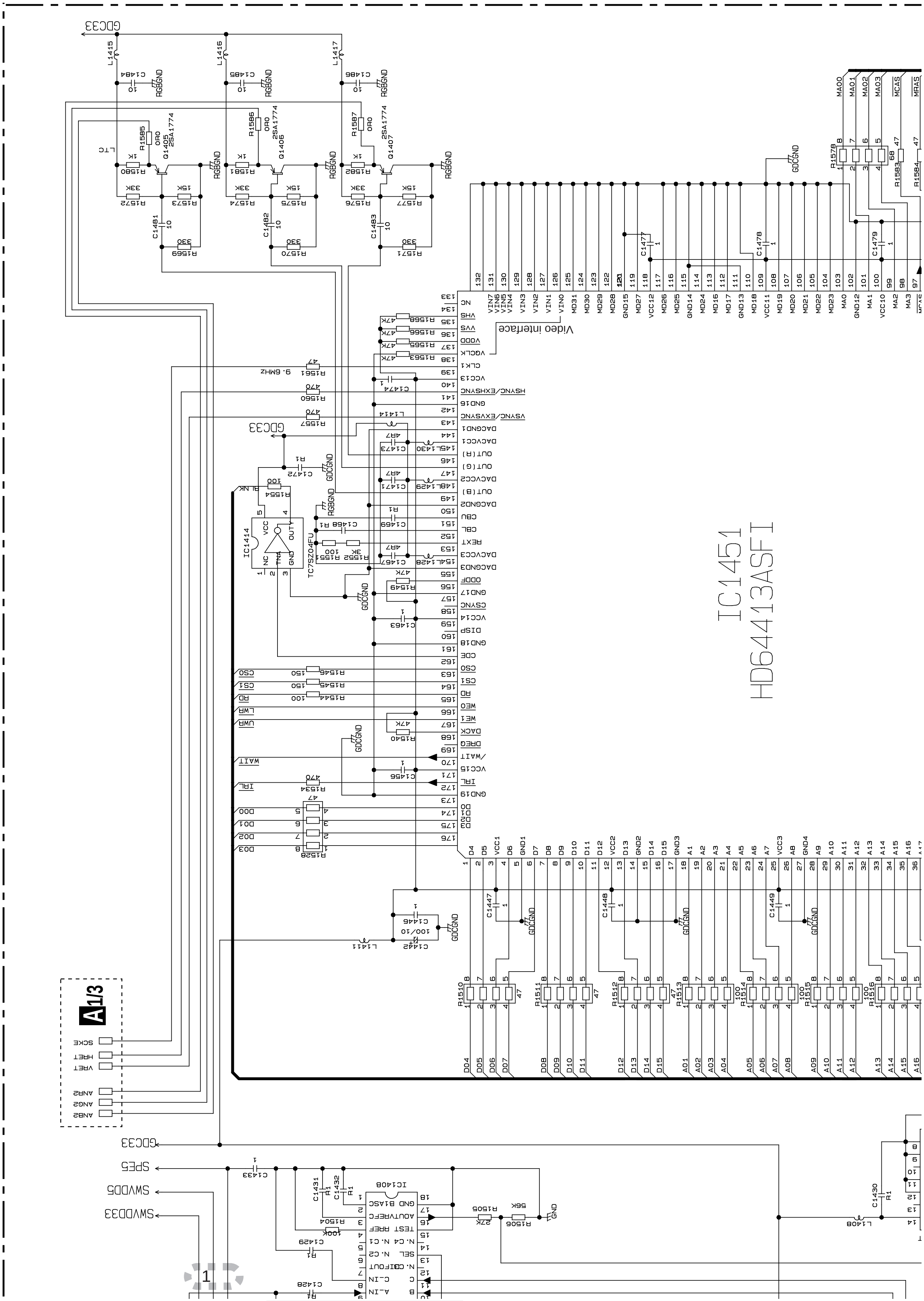
A-a 3/3

A-b 3/3


A
B
C
D
E
F
IC1407
TC74VCX02FT
L1408
R1507
2
GDC33
R1503 47K
R1502 47K
CS3
A22
EPDI
EPDO
EPCLK
EPCS
SPAA
SPAB
SPAC
LSEN
uPNLADX
uPNLADY
SPAD
RXGDC
TXGDC
L1407
C1427
R1497 0R0
IC1405
TC7SET08FU
Vcc
OUTY
INB
INA
GND
GDCGND
R1464
R1485 47K
R1487
R1488 2R2K
C1421
C1422
R01
R1463 1K
C1419
L1404
SWVDD33
R1460 1K
R1456 1K
TP34
TP35
BKL
LBKL
LDPDT
LKYDT
LSWVDD
X1401
CSS1575
4.97MHz
C1417
L1427
IC1404
S-80827CNUA-B8M
D1402
1SS355
R1451 120K
C1416
RESET
R1453 0R0
R1452 47K
IC1401
PE5417A
/EPRPROT
EPRDI
EPRDO
EPRCLK
EPRCS
SP0
SP1
SP2
VSS
VDD
LSEN
PNLADX
PNLADY
SPEANA
NC
KDT0
KDT1
KDT2
AVSS
AVDD/AVREF
DPDT
KYDT
CVSS
X1
X2
CVDD
CKSEL
MODE0
MODE1
TS0
TS1
LDIMMER
SELFTX
SELFRX
/GDCRES
GDCPW
/NM1
STEST
/STEST2
INVPUL
/STEST
PNLYV2
PNLXV
PNLVD
DIMMER
TXDATG
RXNAV
GDCRES
GDCPW
INVPUL
R1449
R1450 1K
R1445 820
R1440 820
R1439 1K
C1412
L1421
R1420 0R0
TP1
R1455 47K
TP28
R1436
R1435 470
R1434 47K
TP1470
R1433 470
R1432 470
C1410
L1420
/IRL
MFLPW
MVIPW
PAL/NTSC
/EPRRST
/EPRTEST
L1419
TP1420
C1409
R1423 47K
R1424 47K
R1413 1K
R1414 820
Q1402
UMF5N
Q1403
UMF5N
R1589 10K
R1588 10K
R1591 10K
R1590 10K
R1446 470
L1401
C1405
R1415 1K
SWVDD33
Q1401
FMG12
D1401
1SS355
C1404
C1402
C1403
R1410 1M
R1411 1M
R1408 1K
R1409 1K
C1401
PNLADY
uPNLADY
PNLADX
uPNLADX
PNLXV
PNLYV
IC1411
PD8125A
ROM2
IC1410
PD8125A
ROM1
R1429
R1441
R1442
R1443
R1444
R1425
R1426
R1427
R1428
R1430
R1431
R1405
R1416
R1417
R1418
R1419
R1401
R1402
R1403
R1404
R1406
R1407
A18 A08 A07 A06 A05 A04 A03 A02 A01 RD D00 D08 D01 D09 D02 D10 D03 D11
A19 A21 A20 A09 A10 A11 A12 A13 A14 A15 A16 A17 D15 D07 D14 D06 D13 D05 D12 D04
/BYTE
VSS2
D15/A-1
CE
OE
VCC
L1403
C1444
C1413
L1402
C1407
C1406
100/10
GDC33
A-a A-b

A-a 3/3

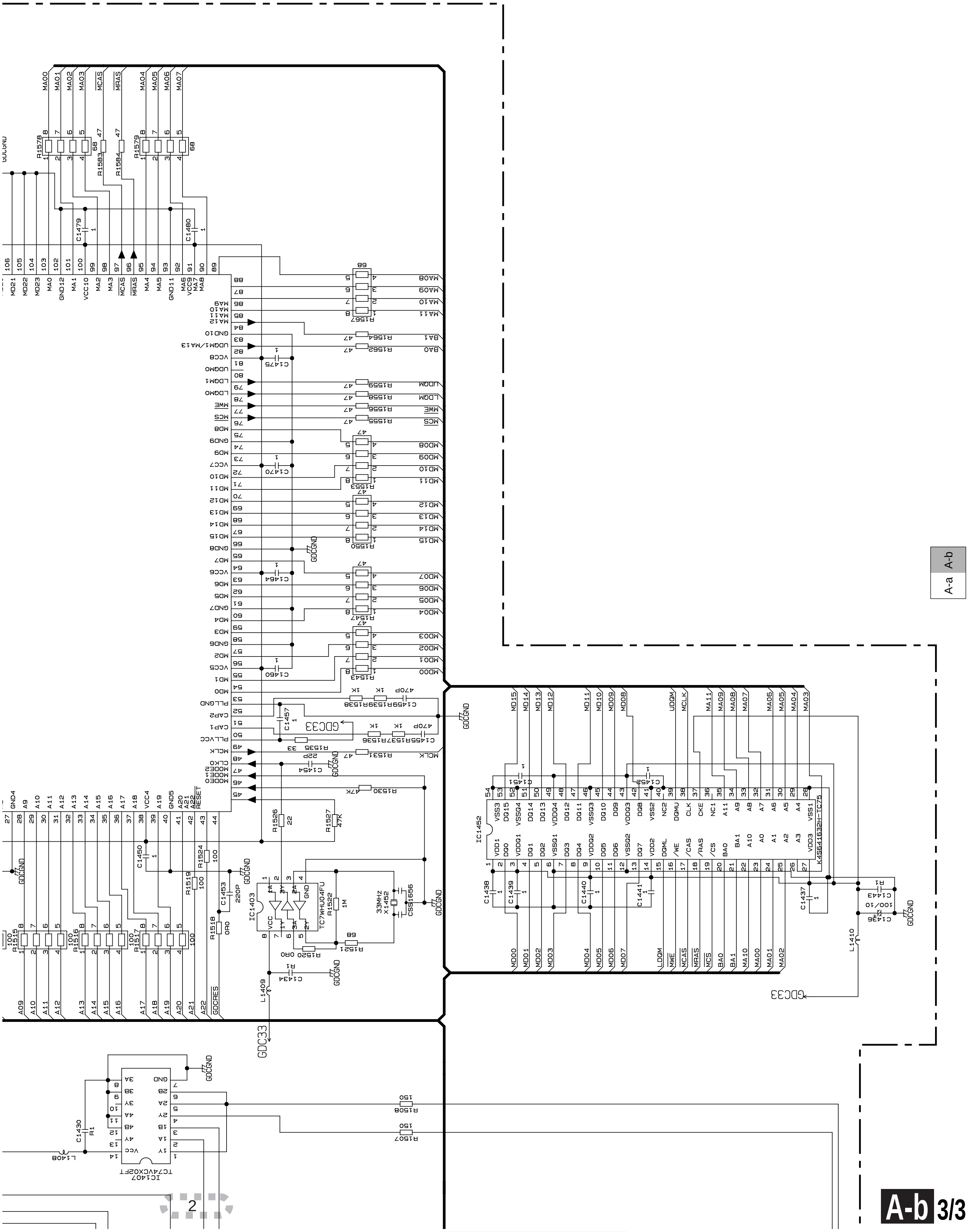
A 3/3 MOTHER PCB



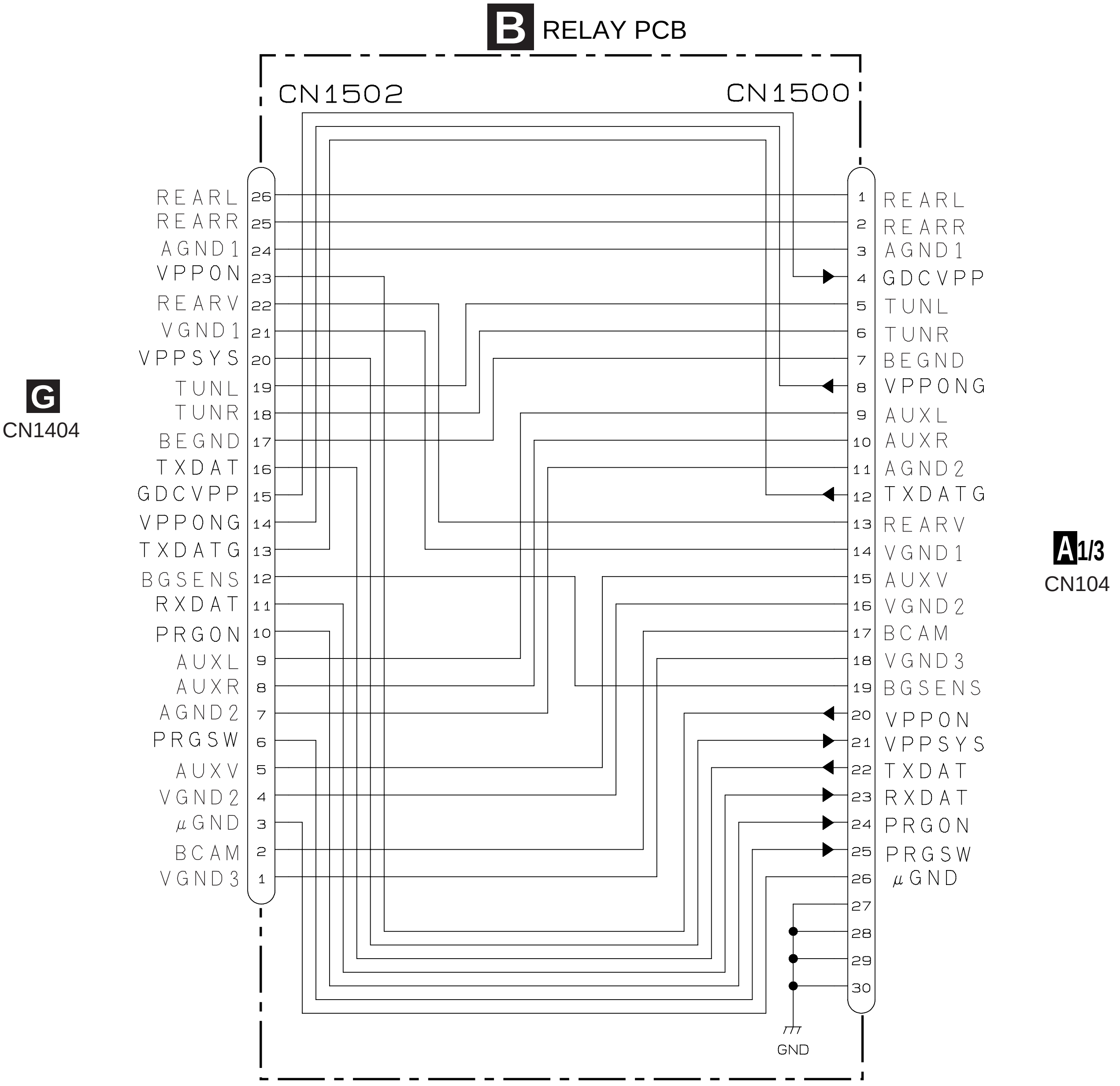
IC1451
HD64413ASFI
Video interface
IC1414
TC7SZ04FU
IC1408
Q1405 2SA1774
Q1406 2SA1774
Q1407 2SA1774
GDC33
RGBGND
GDCGND
9.6MHz
A 1/3
SCKE
HRET
VRET
ANR2
ANG2
ANB2
SPE5
SWVDD5
SWVDD33

A-a A-b

A-b 3/3


IC1452
K4S641632H-TC75
IC1403
TC7WHU04FU
IC1407
TC74VCX02FT
X1452
33MHz
CSS1656
GDC33
GDCGND
L1408
L1409
L1410
R1578
R1579
R1567
R1553
R1550
R1547
R1543
R1515
R1516
R1517
R1507
R1508
C1479
C1480
C1475
C1470
C1464
C1460
C1450
C1453
C1434
C1437
C1438
C1439
C1440
C1441
C1443
C1436
C1430
GDCRES
A-a
A-b

3.6 RELAY PCB


B RELAY PCB
CN1502
CN1500
G
CN1404
A 1/3
CN104
GND
26 REARL
25 REARR
24 AGND1
23 VPPON
22 REARV
21 VGND1
20 VPPSYS
19 TUNL
18 TUNR
17 BEGND
16 TXDAT
15 GDCVPP
14 VPPONG
13 TXDATG
12 BGSENS
11 RXDAT
10 PRGON
9 AUXL
8 AUXR
7 AGND2
6 PRGSW
5 AUXV
4 VGND2
3 μGND
2 BCAM
1 VGND3
1 REARL
2 REARR
3 AGND1
4 GDCVPP
5 TUNL
6 TUNR
7 BEGND
8 VPPONG
9 AUXL
10 AUXR
11 AGND2
12 TXDATG
13 REARV
14 VGND1
15 AUXV
16 VGND2
17 BCAM
18 VGND3
19 BGSENS
20 VPPON
21 VPPSYS
22 TXDAT
23 RXDAT
24 PRGON
25 PRGSW
26 μGND
27
28
29
30

MOTHER UNIT
Consists of
MOTHER PCB
RELAY PCB

1 2 3 4

3.7 DVD CORE UNIT(MS-3V1)(SODC)(GUIDE PAGE)

A

C-a 1/2

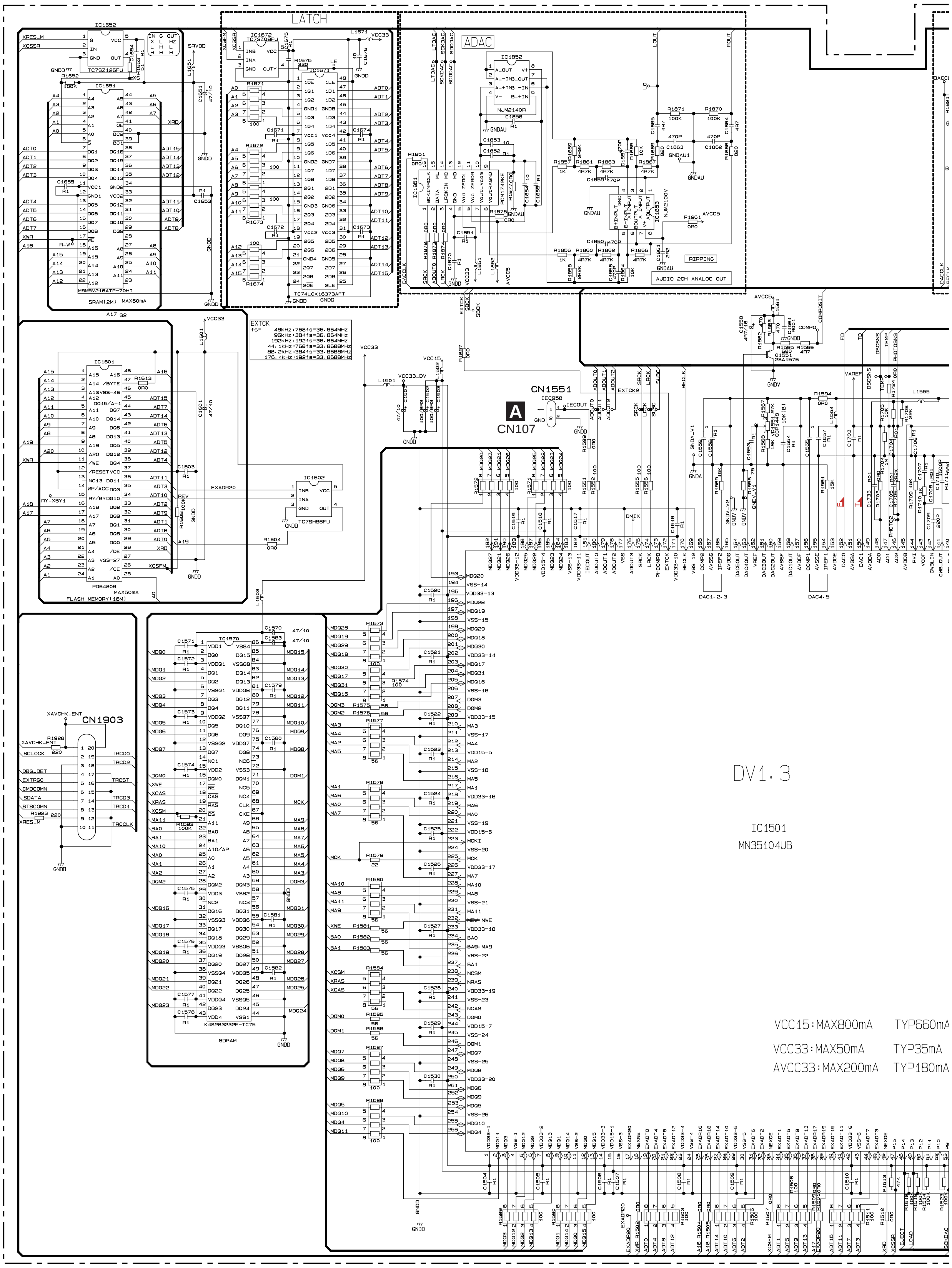
B

C

D

E

F

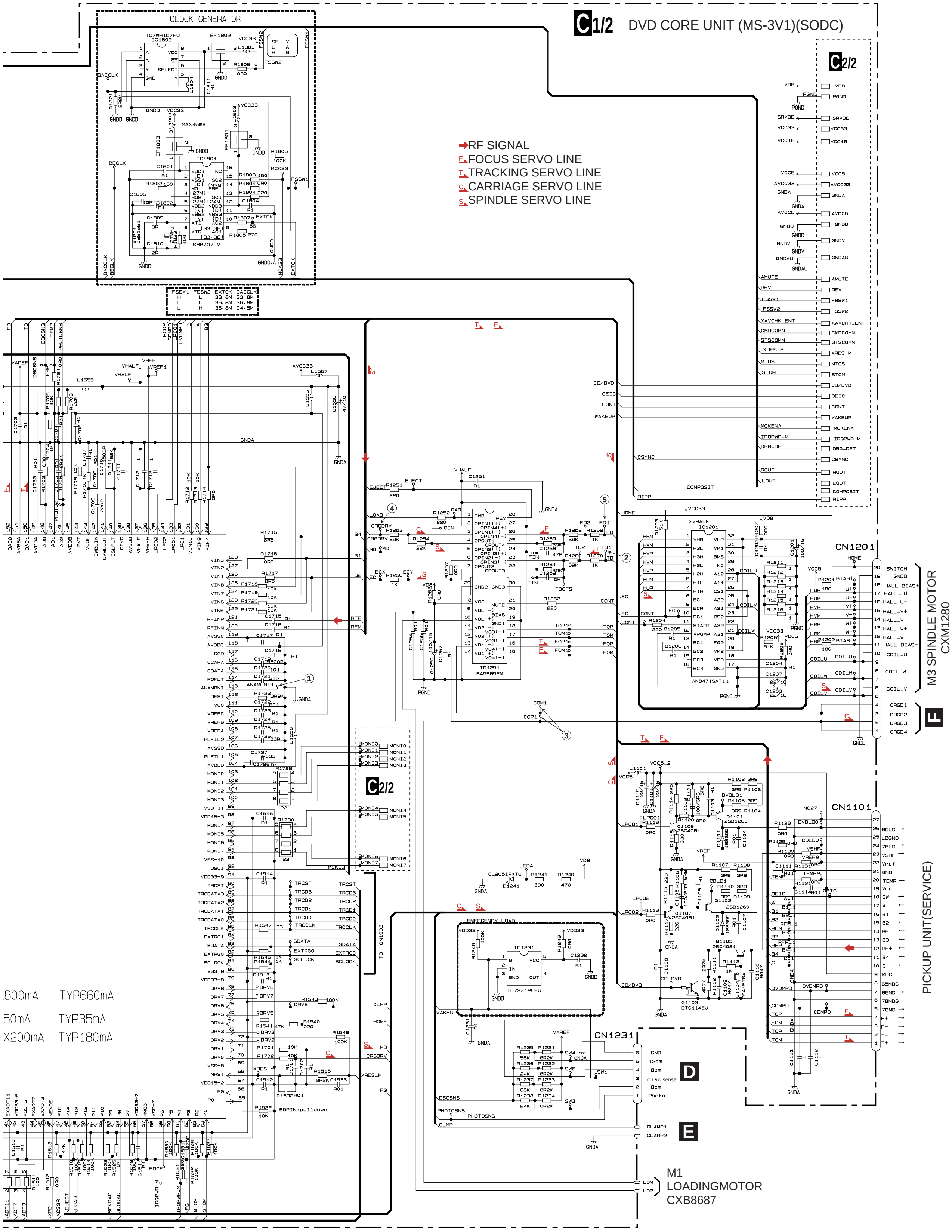


LATCH
ADAC
IC1652
TC7SZ126FU
IC1651
M5M5V216ATP-70HI
SRAM(2M) MAX60mA
IC1672
TC7SZ08FU
IC1671
TC74LCX16373AFT
IC1852
NJM2140R
PCM1742KE
NJM2100V
RIPPING
AUDIO 2CH ANALOG OUT
EXTCK
fs= 48kHz:768fs=36.864MHz
96kHz:384fs=36.864MHz
192kHz:192fs=36.864MHz
44.1kHz:768fs=33.8688MHz
88.2kHz:384fs=33.8688MHz
176.4kHz:192fs=33.8688MHz
IC1601
PD6480B
MAX50mA
FLASH MEMORY(16M)
IC1602
TC7SH08FU
CN1551
IEC958
A
CN107
Q1551
2SA1576
CN1903
IC1570
K4S283232E-TC75
SDRAM
DV1.3
IC1501
MN35104UB
VCC15:MAX800mA TYP660mA
VCC33:MAX50mA TYP35mA
AVCC33:MAX200mA TYP180mA

C 1/2

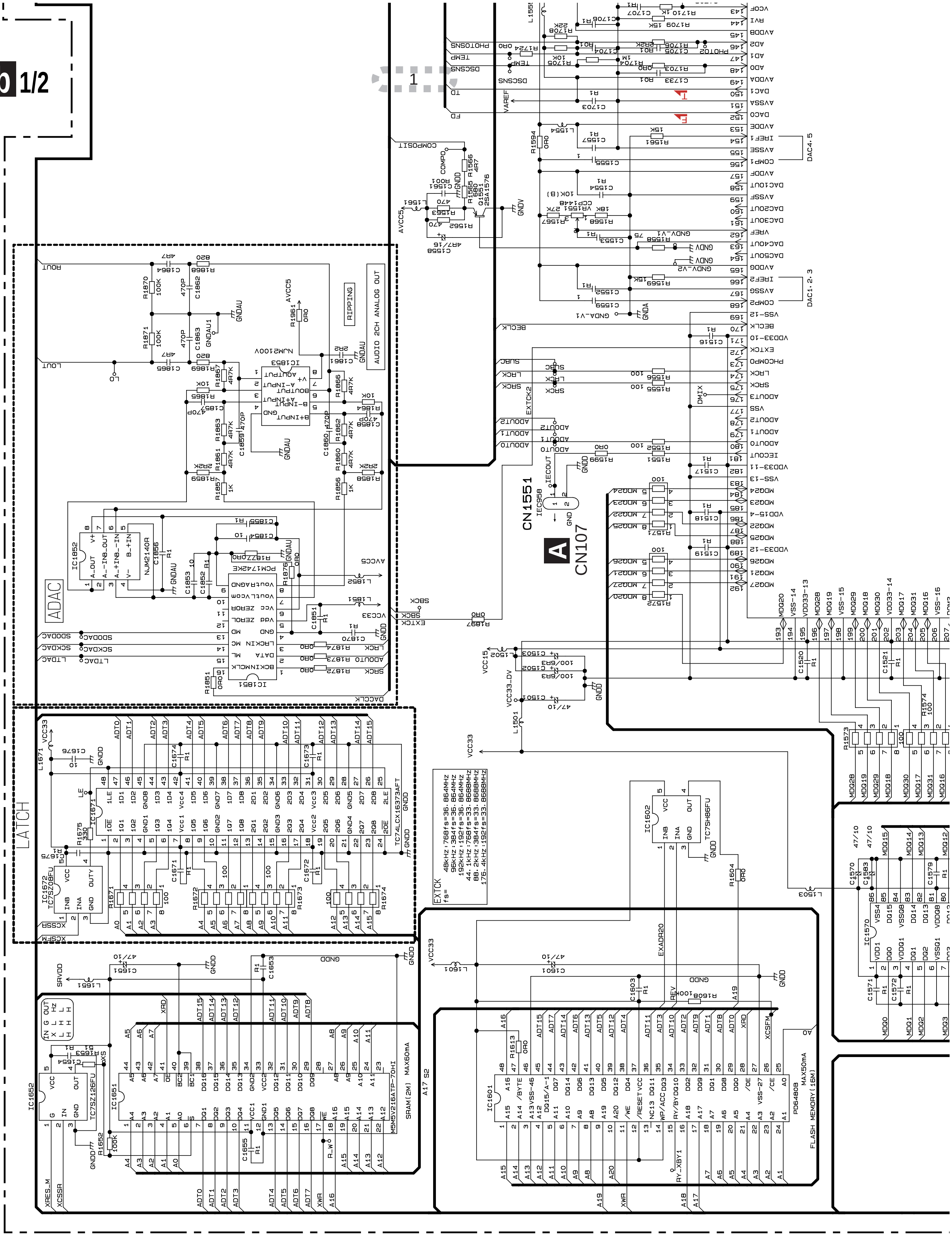
1 2 3 4

C-b 1/2


C 1/2 DVD CORE UNIT (MS-3V1)(SODC)
CLOCK GENERATOR
TC7WH157FU IC1802
EF1802
VCC33
SEL Y L A H B
FSSW2
DACCLK
BECLK
MAX45mA
EF1803
EF1801
IC1801
SM8707LV
X1801 CSS1661
MCK33
EXTCK
GNDD
FSSW1 FSSW2 EXTCK DACCLK
H L 33.8M 33.8M
L L 36.8M 36.8M
L H 36.8M 24.5M
C 2/2
VD8 PGND SRVDD VCC33 VCC15 VCC5 AVCC33 GNDA AVCC5 GNDD GNDV GNDAU
AMUTE REV FSSW1 FSSW2 XAVCHK_ENT CMDCOMN STSCOMN XRES_M MTOS STOM CD/DVD OEIC CONT WAKEUP MCKENA IRQPWR_M DBG_DET CSYNC ROUT LOUT COMPOSIT RIPP
RF SIGNAL
FOCUS SERVO LINE
TRACKING SERVO LINE
CARRIAGE SERVO LINE
SPINDLE SERVO LINE
IC1251 BA5985FM
IC1201 AN8471SATI
CN1201
M3 SPINDLE MOTOR CXM1280
SWITCH GNDD HALL_BIAS+ HALL_U+ HALL_U- HALL_V+ HALL_V- HALL_W+ HALL_W- HALL_BIAS- COIL_U COIL_W COIL_V CRGD1 CRGD2 CRGD3 CRGD4
F
CN1101
PICKUP UNIT(SERVICE)
65LD LDGND 78LD VSHF Vref GND TEMP Vcc SW A B1 B2 RF- B3 RF+ B4 C MDC 65MD 78MD F+ F- T- T+
Q1101 2SB1260
Q1106 2SC4081
Q1105 2SC4081
Q1102 2SB1260
Q1107 2SC4081
Q1103 DTC114EU
C 2/2
MONI0 MONI1 MONI2 MONI3 MONI4 MONI5 MONI6 MONI7
TRCST TRCD3 TRCD2 TRCD1 TRCD0 TRCCLK SDATA EXTRG0 SCLOCK
CLMP HOME MD CRGDRV XRES_M FG
65PIN:pulldown
TO CN1903
EMERGENCY LOAD
IC1231 TC7SZ125FU
CN1231
GND 12cm 8cm disc sense 8cm Photo
D
CLAMP1 CLAMP2
E
M1 LOADINGMOTOR CXB8687
LOM LOP
800mA TYP660mA
50mA TYP35mA
X200mA TYP180mA
① ② ③ ④ ⑤

C 1/2

C-b 1/2


A
B
C
D
E
F
C-a (1/2)
C-b (1/2)
ADAC
LATCH
CN1551
A
CN107
IC1851
PCM1742KE
IC1852
NJM2140R
IC1853
NJM2100V
AUDIO 2CH ANALOG OUT
RIPPING
IC1671
TC74LCX16373AFT
IC1672
TC7SZ08FU
IC1651
M5M5V216ATP-70HI
SRAM(2M) MAX60mA
IC1652
TC7SZ126FU
IC1601
PD6480B
FLASH MEMORY(16M) MAX50mA
IC1602
TC7SH86FU
Q1551
2SA1576
EXTCK
fs=
48kHz:768fs=36.864MHz
96kHz:384fs=36.864MHz
192kHz:192fs=36.864MHz
44.1kHz:768fs=33.8688MHz
88.2kHz:384fs=33.8688MHz
176.4kHz:192fs=33.8688MHz
DAC4.5
DAC1.2.3
VCC33
AVCC5
GNDD
1

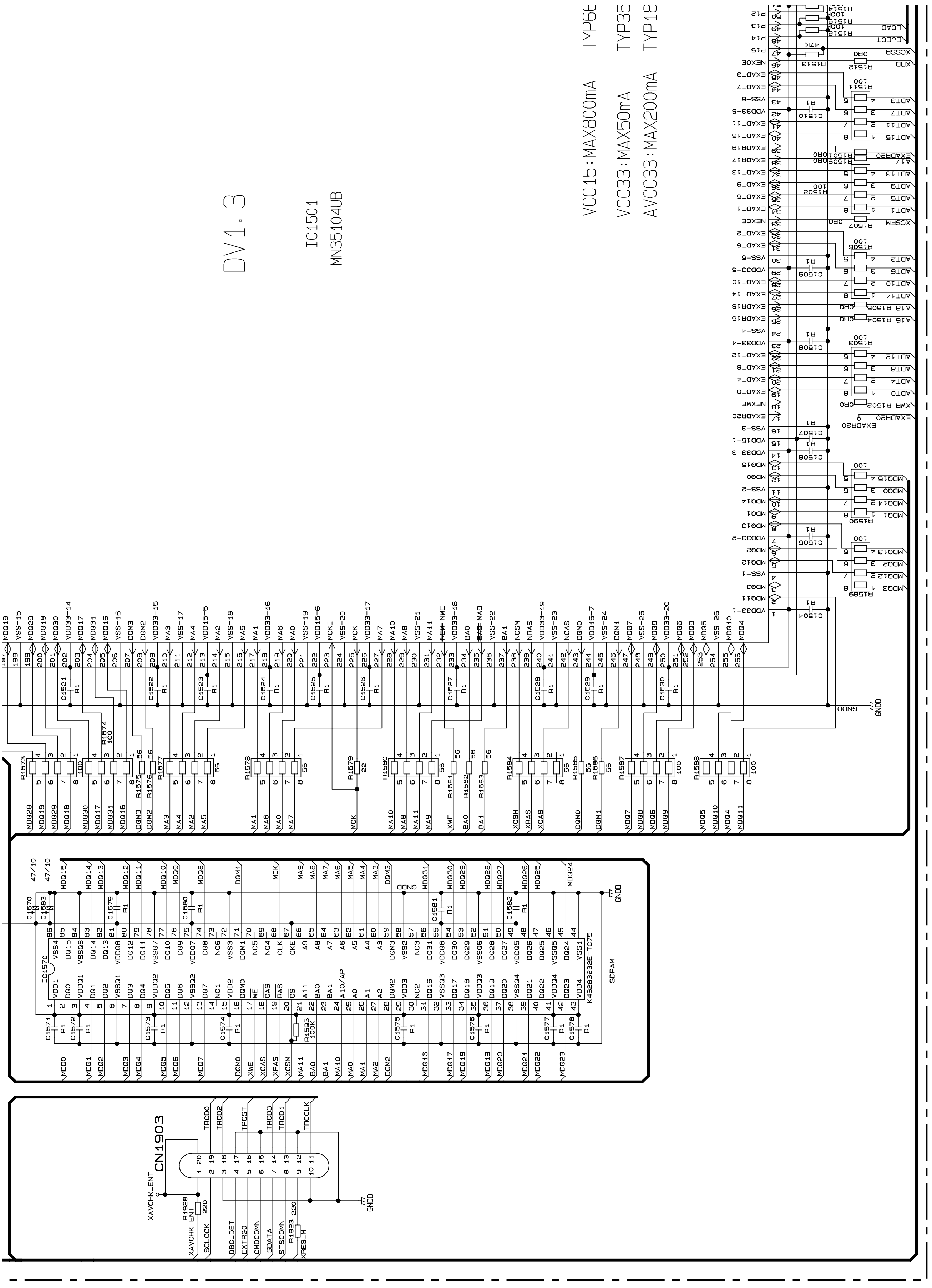
C-a 1/2

A

C-b 1/2

B

C


DV1.3
IC1501
MN35104UB
VCC15:MAX800mA TYP66
VCC33:MAX50mA TYP35
AVCC33:MAX200mA TYP18
IC1570
K4S283232E-TC75
SDRAM
CN1903
GNDD
XAVCHK_ENT
SCLOCK
DBG_DET
EXTRG0
CMDCOMN
SDATA
STSCOMN
XRES_M
TRCD0
TRCD2
TRCST
TRCD3
TRCD1
TRCCLK

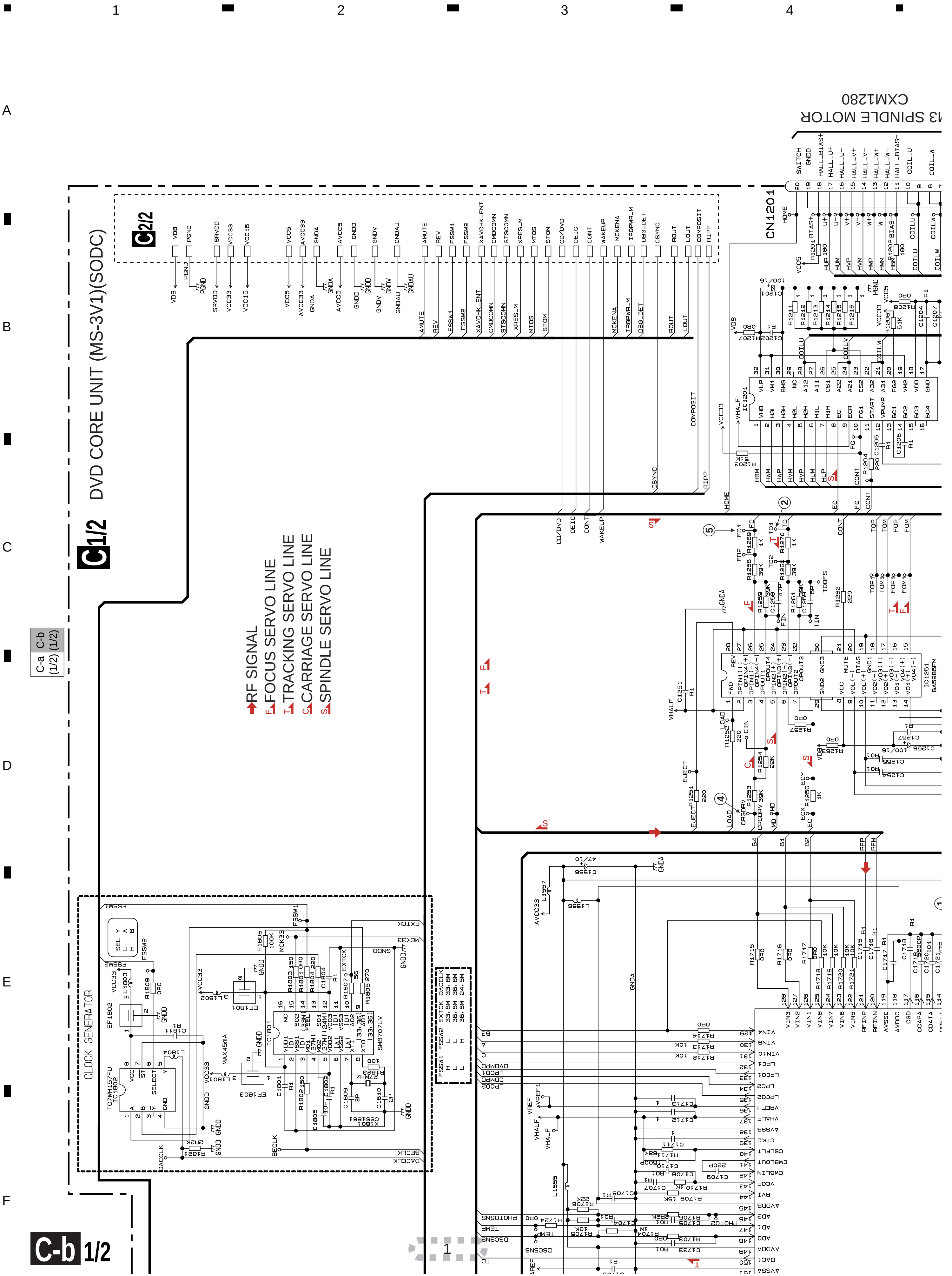
D

C-a (1/2) C-b (1/2)

E

F

C-a 1/2


DVD CORE UNIT (MS-3V1)(SODC)
C1/2
C2/2
C-a (1/2)
C-b (1/2)
C-b 1/2
CN1201
I3 SPINDLE MOTOR
CXM1280
IC1201
IC1251
BA5985FM
CLOCK GENERATOR
IC1801
SM8707LV
IC1802
TC7WH157FU
RF SIGNAL
F FOCUS SERVO LINE
T TRACKING SERVO LINE
C CARRIAGE SERVO LINE
S SPINDLE SERVO LINE
1
2
3
4
A
B
C
D
E
F

A

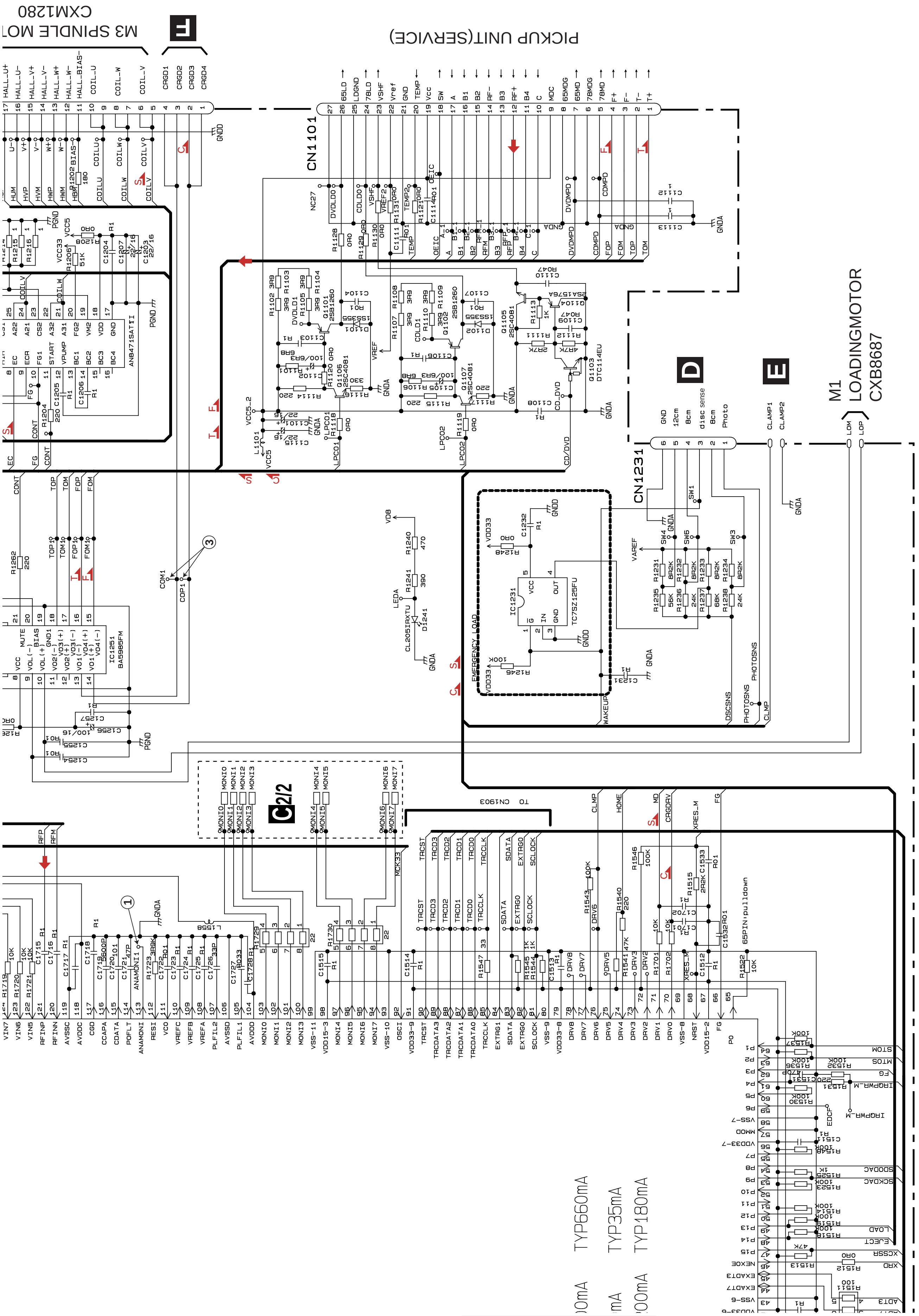
B

C

D

E

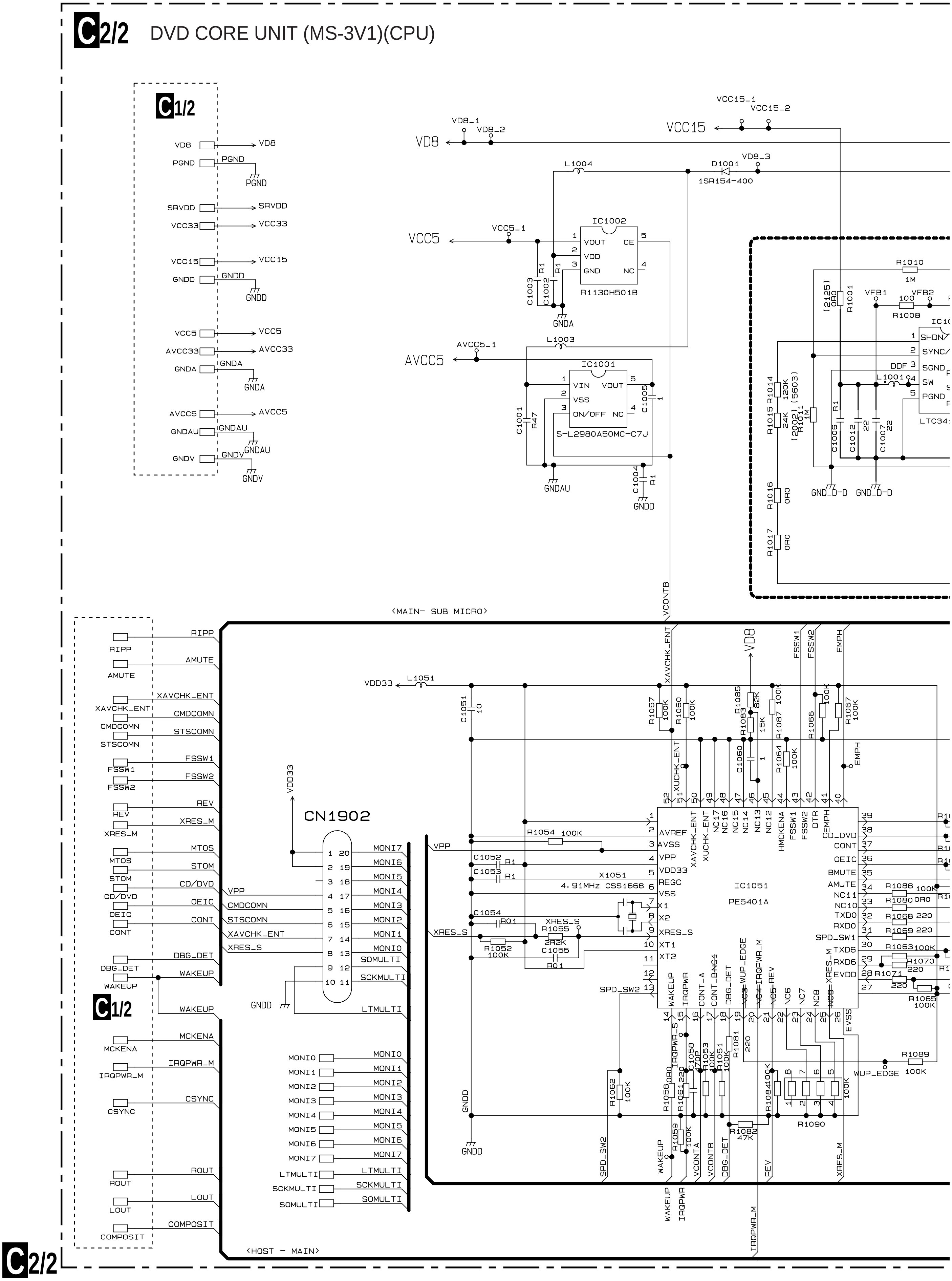
F

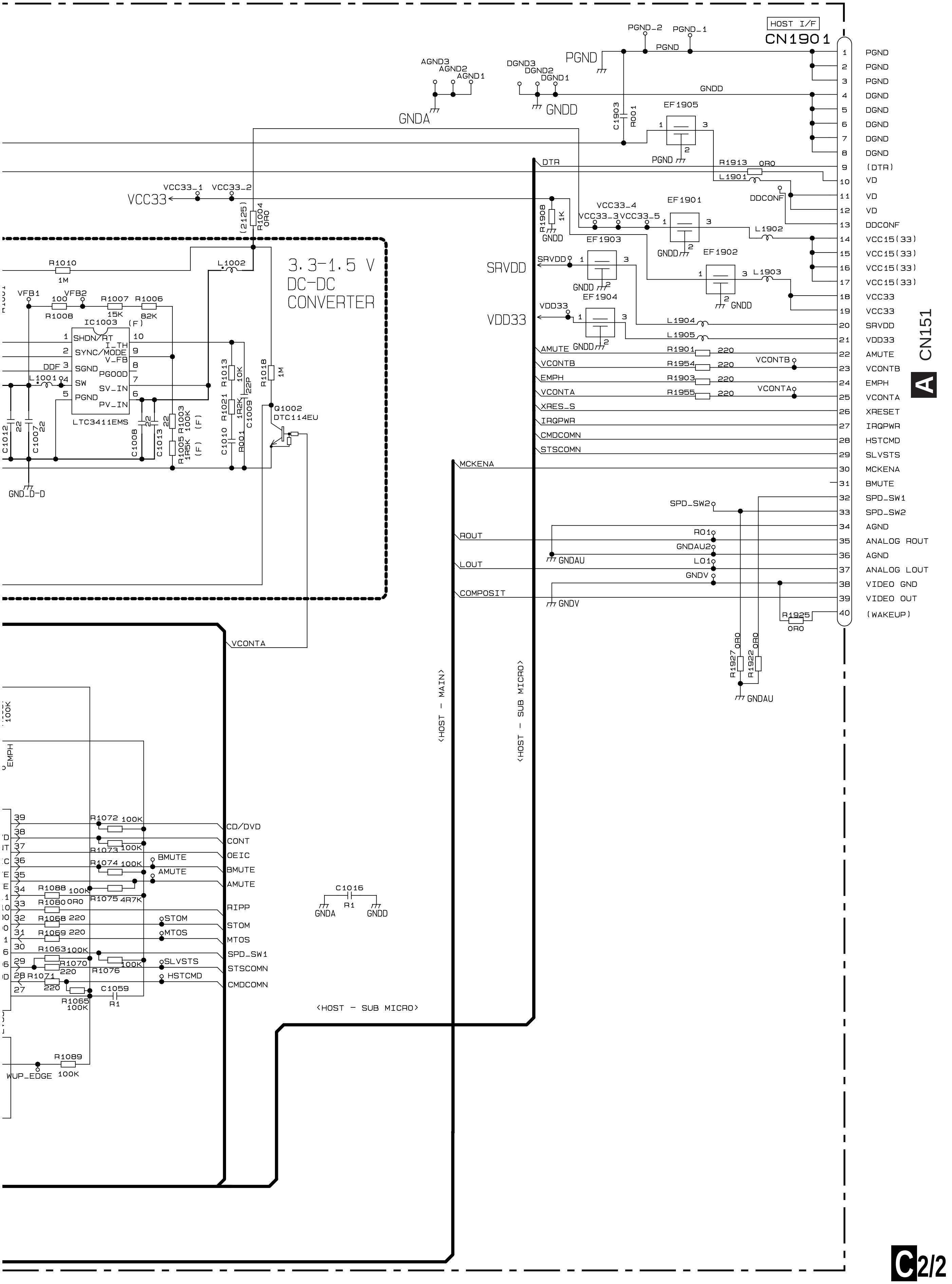

PICKUP UNIT(SERVICE)
F
M3 SPINDLE MOTOR
CXM1280
CN1101
65LD
LDGND
78LD
VSHF
Vref
GND
TEMP
Vcc
SW
A
B1
B2
RF-
B3
RF+
B4
C
MDC
65MDG
65MD
78MDG
78MD
F+
F-
T-
T+
HALL_U+
HALL_U-
HALL_V+
HALL_V-
HALL_W+
HALL_W-
HALL_BIAS-
COIL_U
COIL_W
COIL_V
CRGD1
CRGD2
CRGD3
CRGD4
GNDD
GNDA
PGND
AN8471SA
Q1101 2SB1260
Q1102 2SB1260
Q1103 DTC114EU
Q1104 2SA1576A
Q1105 2SC4081
Q1106 2SC4081
Q1107 2SC4081
D1101 1SS355
D1102 1SS355
L1101
VCC5
VCC5_2
CD_DVD
D
E
M1
LOADINGMOTOR
CXB8687
CN1231
12cm
8cm
disc sense
Photo
CLAMP1
CLAMP2
LOM
LOP
IC1231
TC7SZ125FU
EMERGENCY LOAD
VDD33
VAREF
WAKEUP
DSCSNS
PHOTOSNS
CLMP
IC1251
BA5985FM
CL205IRXTU
D1241
LEDA
VD8
COM1
COP1
TOP
TOM
FOP
FOM
CONT
FG
EC
C2/2
TO CN1903
MONI0
MONI1
MONI2
MONI3
MONI4
MONI5
MONI6
MONI7
L1558
65PIN:pulldown
TYP60mA
TYP35mA
TYP180mA
STOM
MTOS
IRQPWR_M
SCKDAC
SDODAC
LOAD
EJECT
XCSSR
XRD
ADT3

C-b 1/2

C-a (1/2) C-b (1/2)

3.8 DVD CORE UNIT(MS-3V1)(CPU)


C2/2
DVD CORE UNIT (MS-3V1)(CPU)
C1/2
VD8
PGND
SRVDD
VCC33
VCC15
GNDD
VCC5
AVCC33
GNDA
AVCC5
GNDAU
GNDV
VD8_1
VD8_2
VCC15_1
VCC15_2
VD8_3
L1004
D1001
1SR154-400
IC1002
VOUT
VDD
GND
CE
NC
R1130H501B
VCC5_1
C1003
C1002
R1
AVCC5_1
L1003
IC1001
VIN
VSS
ON/OFF
S-L2980A50MC-C7J
C1001
R47
C1005
C1004
R1010
1M
R1001
(2125)
0R0
VFB1
VFB2
100
R1008
SHDN
SYNC/
SGND
SW
PGND
DDF
L1001
LTC34
R1014
120K
R1015
24K
(5603)
(2002)
R1011
1M
C1006
C1012
22
C1007
GND_D-D
R1016
R1017
VCONTB
<MAIN- SUB MICRO>
RIPP
AMUTE
XAVCHK_ENT
CMDCOMN
STSCOMN
FSSW1
FSSW2
REV
XRES_M
MTOS
STOM
CD/DVD
OEIC
CONT
DBG_DET
WAKEUP
MCKENA
IRQPWR_M
CSYNC
ROUT
LOUT
COMPOSIT
VDD33
L1051
C1051
10
CN1902
VPP
XRES_S
MONI0
MONI1
MONI2
MONI3
MONI4
MONI5
MONI6
MONI7
SOMULTI
SCKMULTI
LTMULTI
GNDD
R1054
100K
C1052
C1053
C1054
R01
X1051
4.91MHz CSS1668
R1055
2R2K
R1052
100K
C1055
IC1051
PE5401A
AVREF
AVSS
REGC
X1
X2
XT1
XT2
XUCHK_ENT
HMCKENA
DTR
EMPH
CD_DVD
BMUTE
NC11
NC10
TXD0
RXD0
SPD_SW1
TXD6
RXD6
EVDD
EVSS
IRQPWR
CONT_A
CONT_B
WUP_EDGE
SPD_SW2
R1057
R1060
R1085
82K
R1083
15K
R1087
R1066
R1067
C1060
R1064
R1088
R1080
R1068
220
R1069
R1063
R1070
R1071
R1065
R1089
R1062
R1058
R1061
C1058
470P
R1053
R1051
R1081
R1084
R1090
R1082
47K
R1059
VCONTA
<HOST - MAIN>

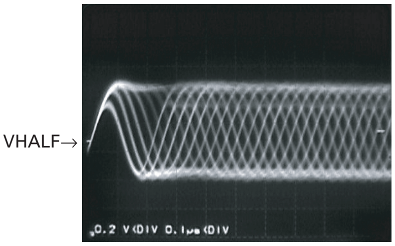

HOST I/F
CN1901
PGND_2
PGND_1
PGND
AGND3
AGND2
AGND1
DGND3
DGND2
DGND1
GNDA
GNDD
C1903
R001
EF1905
DTR
R1913 0R0
L1901
VCC33
VCC33_1
VCC33_2
(2125)
R1004 0R0
R1908 1K
VCC33_4
VCC33_3
VCC33_5
EF1901
DDCONF
L1902
EF1903
EF1902
L1903
SRVDD
VDD33
EF1904
L1904
L1905
AMUTE
VCONTB
EMPH
VCONTA
XRES_S
IRQPWR
CMDCOMN
STSCOMN
MCKENA
R1901 220
R1954 220
R1903 220
R1955 220
SPD_SW2
RO1
GNDAU2
LO1
GNDV
ROUT
LOUT
COMPOSIT
GNDAU
R1925 0R0
R1927 0R0
R1922 0R0
1 PGND
2 PGND
3 PGND
4 DGND
5 DGND
6 DGND
7 DGND
8 DGND
9 (DTR)
10 VD
11 VD
12 VD
13 DDCONF
14 VCC15(33)
15 VCC15(33)
16 VCC15(33)
17 VCC15(33)
18 VCC33
19 VCC33
20 SRVDD
21 VDD33
22 AMUTE
23 VCONTB
24 EMPH
25 VCONTA
26 XRESET
27 IRQPWR
28 HSTCMD
29 SLVSTS
30 MCKENA
31 BMUTE
32 SPD_SW1
33 SPD_SW2
34 AGND
35 ANALOG ROUT
36 AGND
37 ANALOG LOUT
38 VIDEO GND
39 VIDEO OUT
40 (WAKEUP)
CN151
A
3.3-1.5 V
DC-DC
CONVERTER
R1010 1M
L1002
VFB1
VFB2
100
R1008
R1007 15K
R1006 82K
IC1003 (F)
SHDN/RT
SYNC/MODE
SGND
SW
PGND
I_TH
V_FB
PGOOD
SV_IN
PV_IN
DDF
L1001
LTC3411EMS
C1012 22
C1007 22
C1008
C1013 22
R1003 100K (F)
R1005 1R5K (F)
R1013 10K
R1021 1R2K
C1009 22P
C1010
R001
R1018 1M
Q1002
DTC114EU
GND_D-D
VCONTA
100K
EMPH
R1072 100K
R1073 100K
R1074 100K
R1088 100K
R1080 0R0
R1075 4R7K
R1068 220
R1069 220
R1063 100K
R1070 220
R1076 100K
R1071 220
R1065 100K
C1059 R1
BMUTE
AMUTE
STOM
MTOS
SLVSTS
HSTCMD
CD/DVD
CONT
OEIC
RIPP
SPD_SW1
STSCOMN
CMDCOMN
C1016 R1
GNDA
GNDD
R1089 100K
WUP_EDGE
<HOST - MAIN>
<HOST - SUB MICRO>
A
B
C
D
E
F

C 2/2

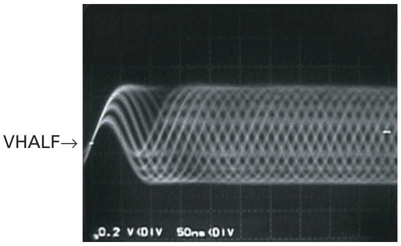
Waveforms

Note:1. The encircled number denote measuring pointes in the circuit diagram.
2. Reference voltage VHALF : 1.65V(TD1,FD1,CRGDRV)
: 2V Center(ANAMONI1)
In this waveform, it is seeing on the GND standard.
Offset of 1.65V or 2V is put in.

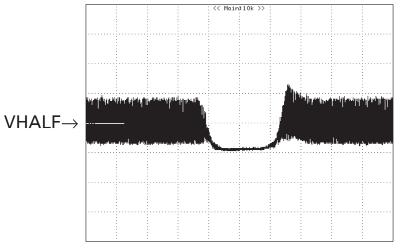
① ANAMONI1 0.2V/div. 0.1μs/div.
CDRF



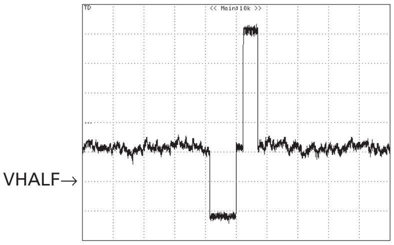
① ANAMONI1 0.2V/div. 0.1μs/div.
DVDRF



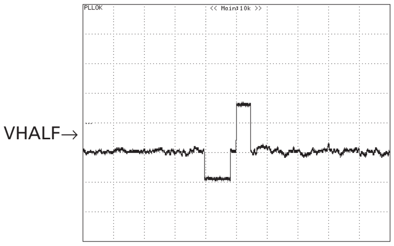
① ANAMONI1 0.5V/div. 100μs/div.
DVDRF(BD1mm)



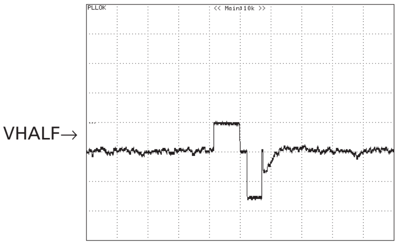
② TD1 0.2V/div. 100μs/div.
Interval



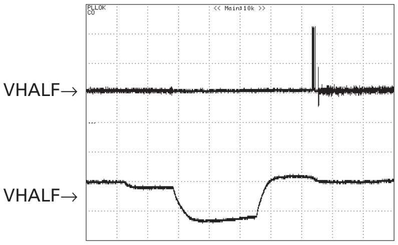
② TD1 0.5V/div. 100μs/div.
Interval FWD



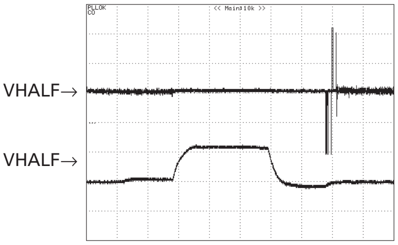
② TD1 0.5V/div. 100μs/div.
Interval REV



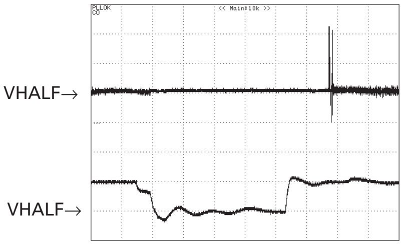
② CH1: TD1 0.5V/div.5ms/div.
③ CH2: COP1-COM1 2.0V/div.5ms/div.
Traverse501FWD



② CH1: TD1 0.5V/div.5ms/div.
③ CH2: COP1-COM1 2.0V/div.5ms/div.
Traverse501REV



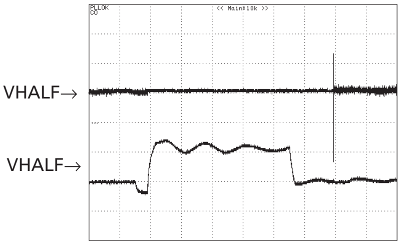
② CH1: TD1 0.5V/div.5ms/div.
③ CH2: COP1-COM1 2.0V/div.5ms/div.
Traverse5000FWD



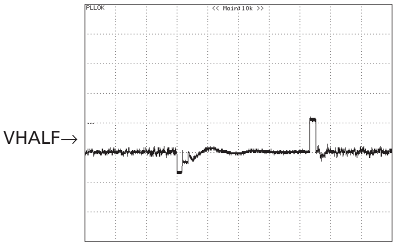
● Waveforms

Note:1. The encircled number denote measuring pointes in the circuit diagram.
2. Reference voltage VHALF : 1.65V(TD1,FD1,CRGDRV)
: 2V Center(ANAMONI1)
In this waveform, it is seeing on the GND standard.
Offset of 1.65V or 2V is put in.

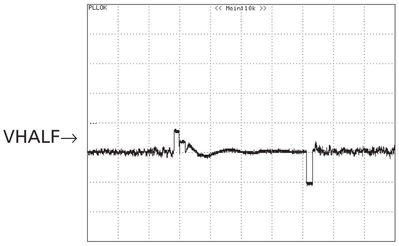
② CH1: TD1 0.5V/div.5ms/div.
③ CH2: COP1-COM1 2.0V/div.5ms/div.
Traverse5000REV



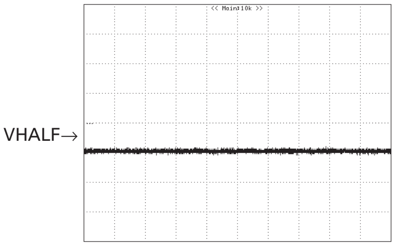
② TD1 0.5V/div.500µs/div.
Multi 32FWD



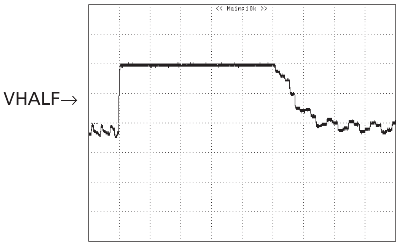
② TD1 0.5V/div.500µs/div.
Multi 32REV



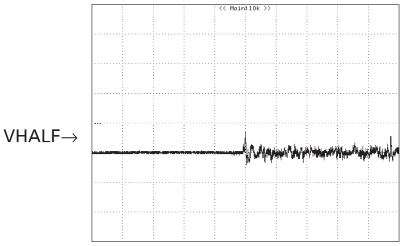
② TD1 0.5V/div.20ms/div.
Play TD



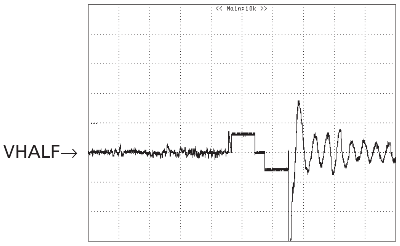
④ CRGPRV 0.5V/div. 100µs/div.
ID search Insaide → Outside



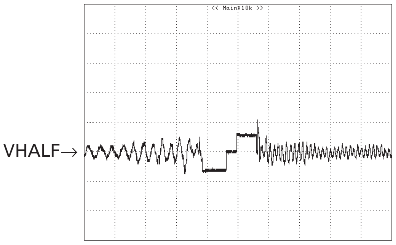
⑤ FD1 0.5V/div. 1ms/div.
Focus close



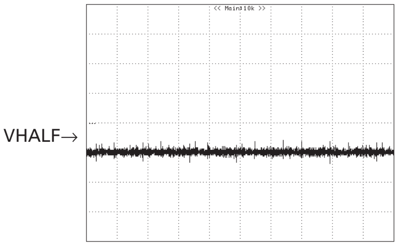
⑤ FD1 0.5V/div.500µs/div.
Focus jamp L 0 → L1



⑤ FD1 0.5V/div.500µs/div.
Focus jamp L1 → L 0

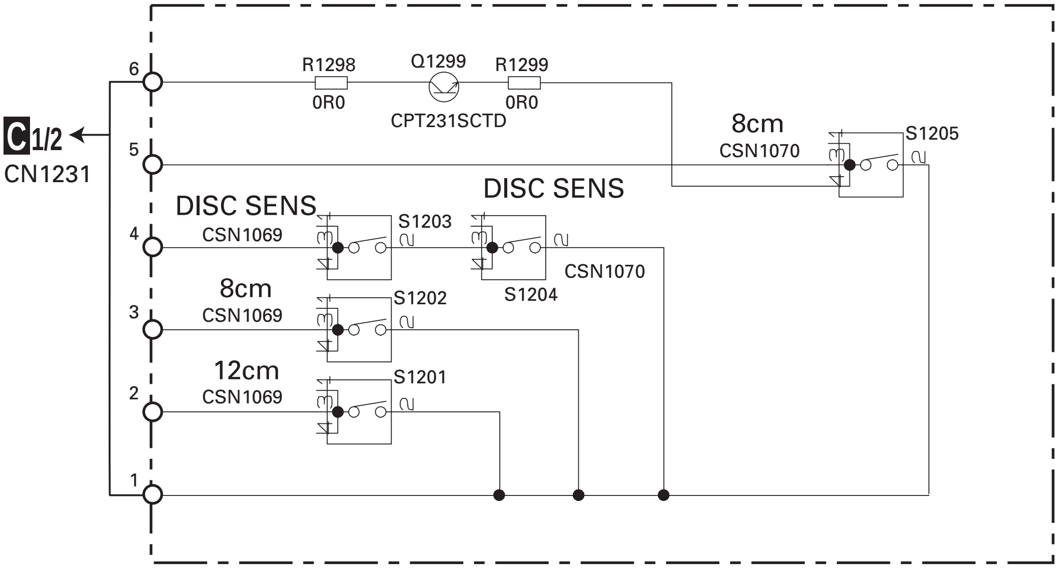


⑤ FD1 0.5V/div.20ms/div.
Play TD

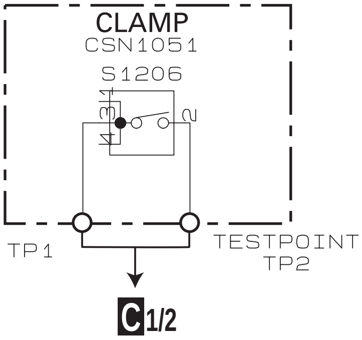


3.9 COMPOUND UNIT(A) , COMPOUND UNIT(B) AND RELAY PCB

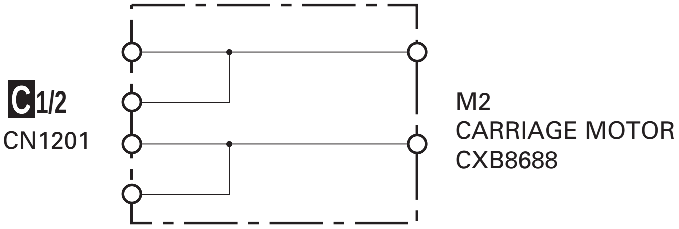
D COMPOUND UNIT(A)


C 1/2
CN1231
6
5
4
3
2
1
R1298
0R0
Q1299
CPT231SCTD
R1299
0R0
8cm
CSN1070
S1205
DISC SENS
CSN1069
S1203
DISC SENS
S1204
CSN1070
8cm
CSN1069
S1202
12cm
CSN1069
S1201

E COMPOUND UNIT(B)

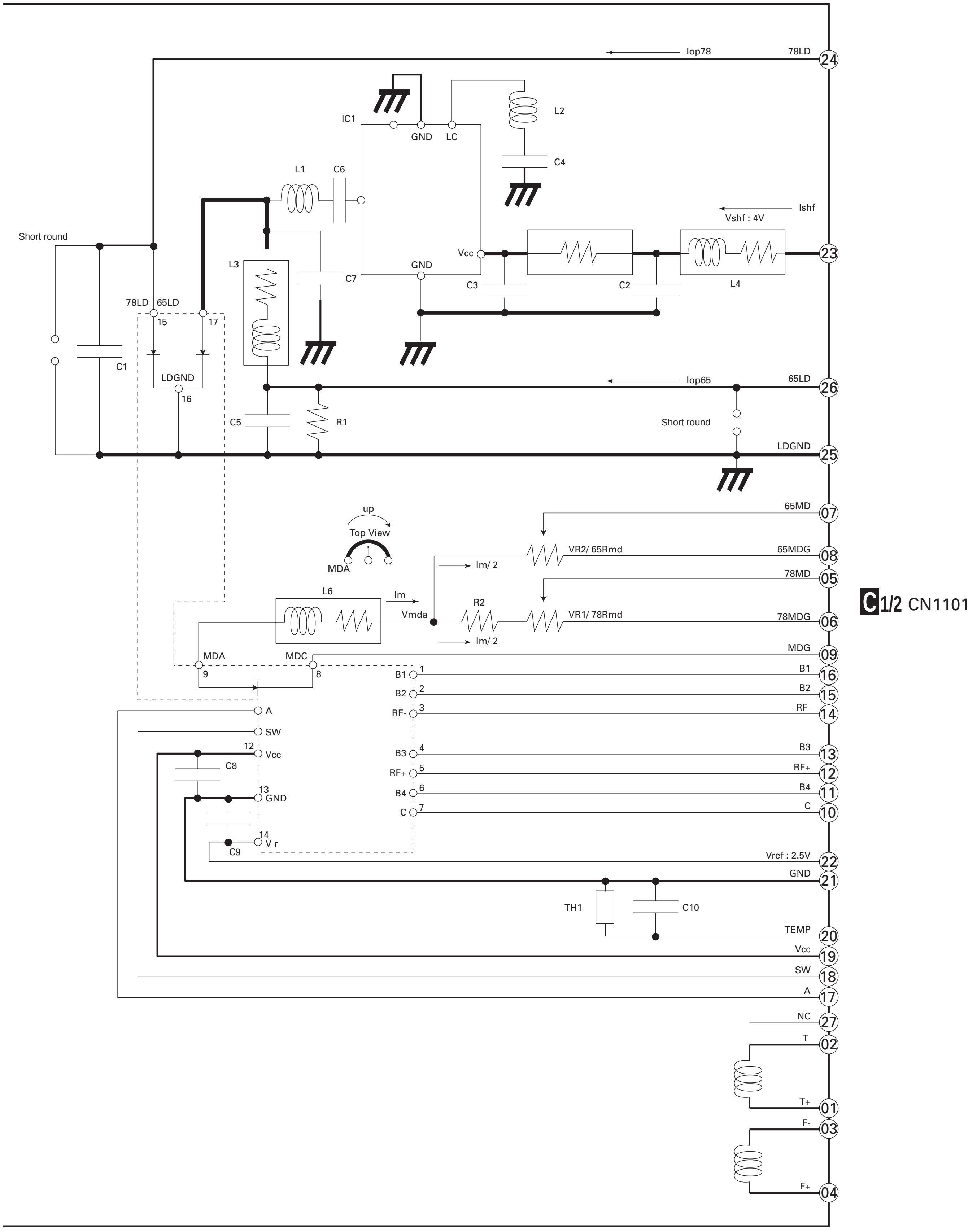

CLAMP
CSN1051
S1206
TP1
TESTPOINT
TP2
C 1/2

F RELAY PCB

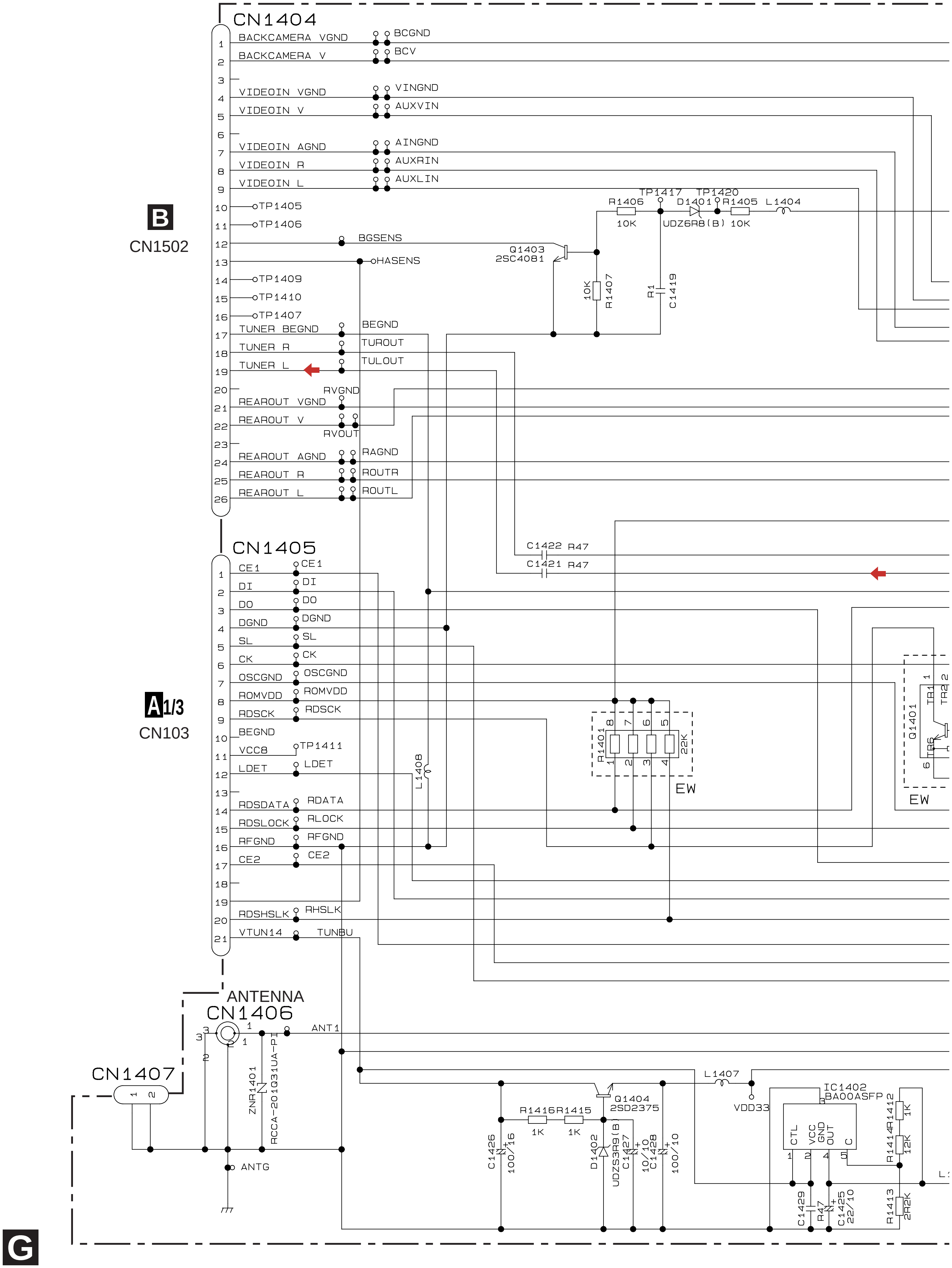

C 1/2
CN1201
M2
CARRIAGE MOTOR
CXB8688

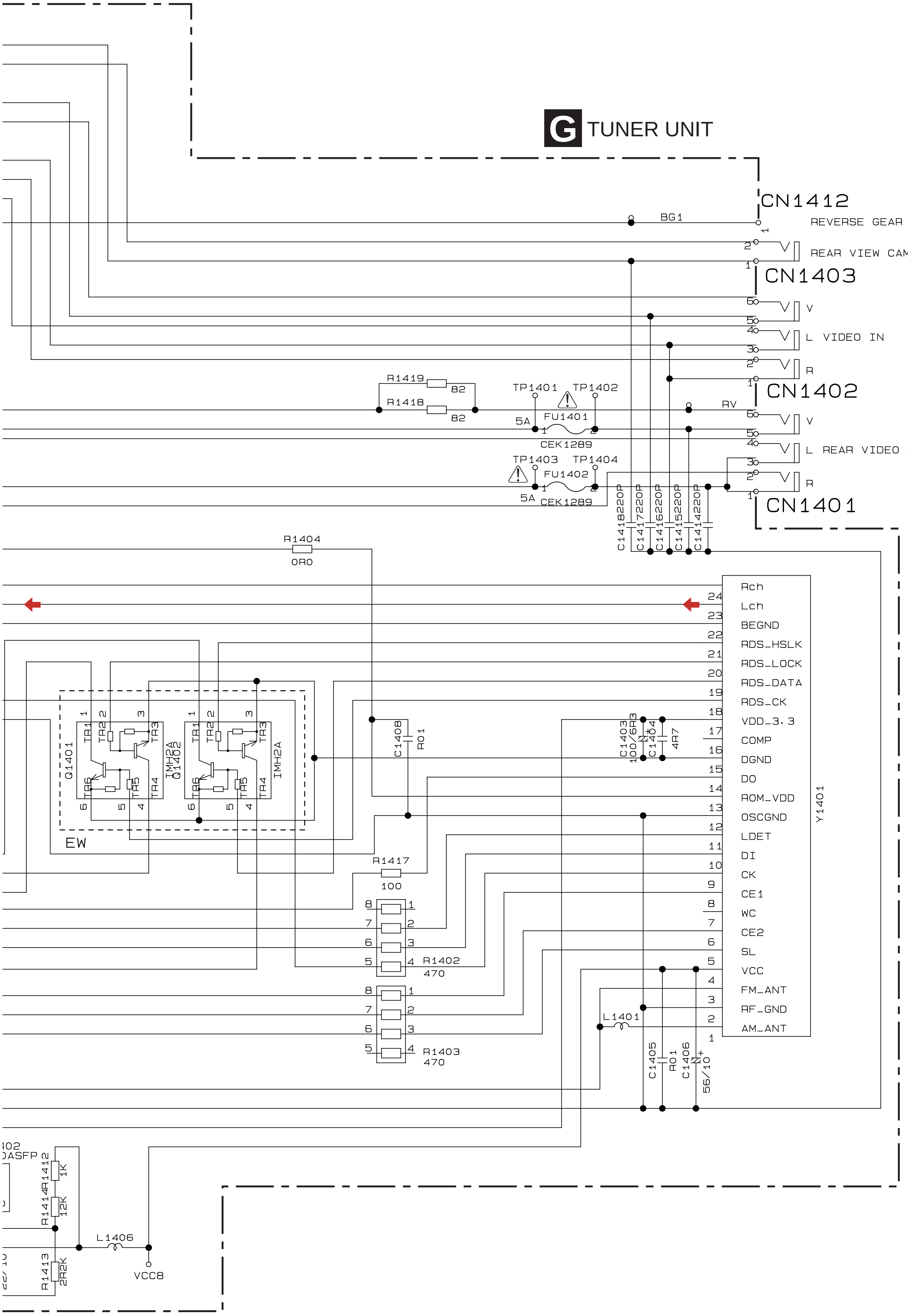
D E F

3.10 PU UNIT(REFERENCE)

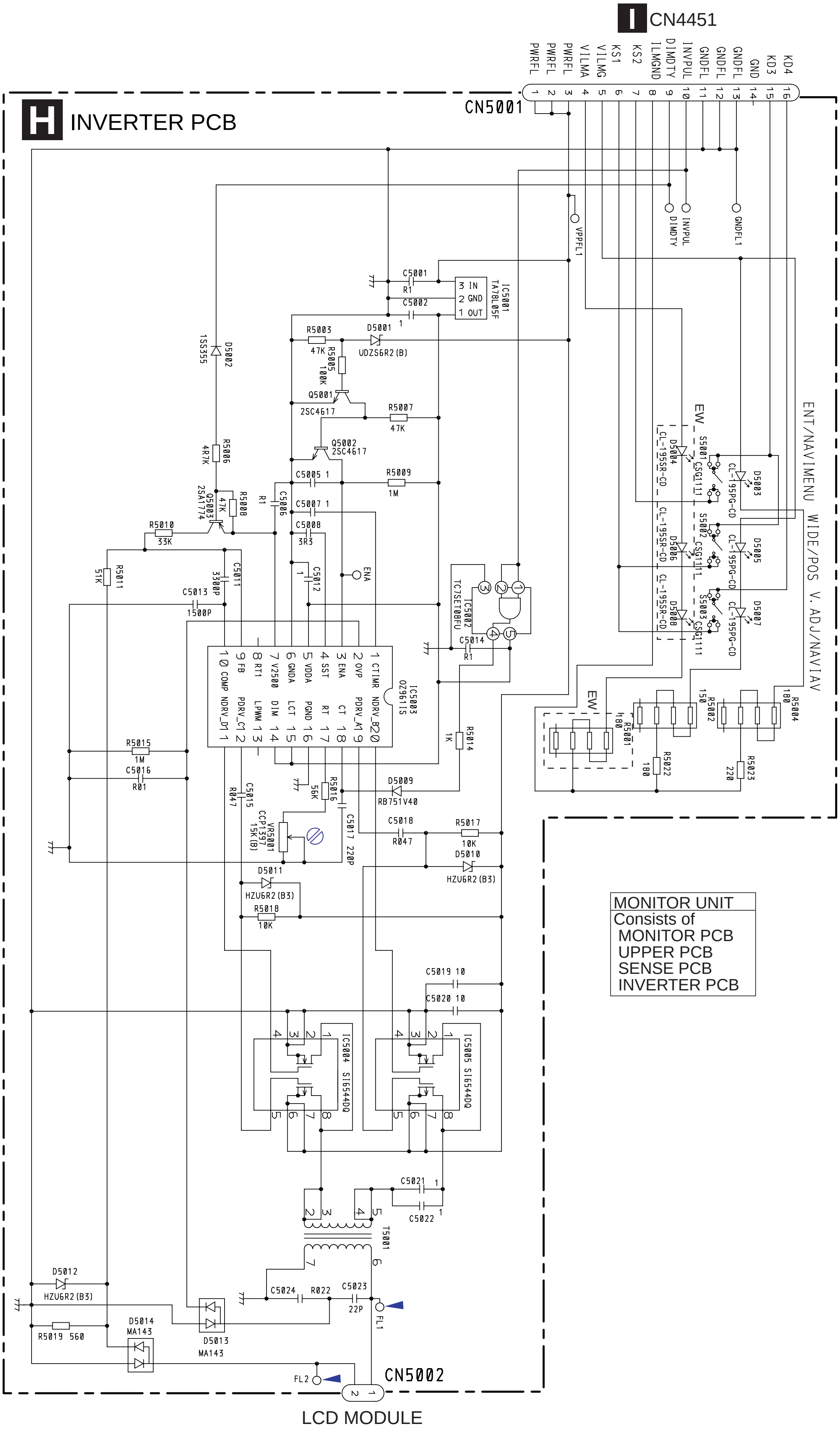

Iop78
78LD
24
IC1
GND
LC
L2
C4
L1
C6
Ishf
Vshf : 4V
Short round
L3
C7
Vcc
GND
C3
C2
L4
23
78LD
65LD
15
17
C1
LDGND
16
Iop65
65LD
26
C5
R1
Short round
LDGND
25
up
Top View
MDA
65MD
07
VR2/ 65Rmd
65MDG
08
Im/ 2
78MD
05
L6
Im
R2
Vmda
VR1/ 78Rmd
78MDG
06
C1/2 CN1101
Im/ 2
MDA
MDC
MDG
09
9
8
B1
1
B1
16
B2
2
B2
15
RF-
3
RF-
14
A
SW
12
Vcc
C8
B3
4
B3
13
RF+
5
RF+
12
13
GND
B4
6
B4
11
C
7
C
10
14
V r
C9
Vref : 2.5V
22
GND
21
TH1
C10
TEMP
20
Vcc
19
SW
18
A
17
NC
27
T-
02
T+
01
F-
03
F+
04

3.11 TUNER UNIT


A
B
C
D
E
F
B
CN1502
CN1404
1 BACKCAMERA VGND
2 BACKCAMERA V
3
4 VIDEOIN VGND
5 VIDEOIN V
6
7 VIDEOIN AGND
8 VIDEOIN R
9 VIDEOIN L
10 TP1405
11 TP1406
12
13
14 TP1409
15 TP1410
16 TP1407
17 TUNER BEGND
18 TUNER R
19 TUNER L
20
21 REAROUT VGND
22 REAROUT V
23
24 REAROUT AGND
25 REAROUT R
26 REAROUT L
BCGND
BCV
VINGND
AUXVIN
AINGND
AUXRIN
AUXLIN
BGSENS
HASENS
BEGND
TUROUT
TULOUT
RVGND
RVOUT
RAGND
ROUTR
ROUTL
TP1417
TP1420
R1406
10K
D1401
UDZ6R8(B)
R1405
10K
L1404
Q1403
2SC4081
10K
R1407
R1
C1419
A1/3
CN103
CN1405
1 CE1
2 DI
3 DO
4 DGND
5 SL
6 CK
7 OSCGND
8 ROMVDD
9 RDSCK
10 BEGND
11 VCC8
12 LDET
13
14 RDSDATA
15 RDSLOCK
16 RFGND
17 CE2
18
19
20 RDSHSLK
21 VTUN14
CE1
DI
DO
DGND
SL
CK
OSCGND
ROMVDD
RDSCK
TP1411
LDET
RDATA
RLOCK
RFGND
CE2
RHSLK
TUNBU
C1422 R47
C1421 R47
L1408
R1401
8 7 6 5
1 2 3 4
22K
EW
Q1401
TR1 1
TR2 2
TR6 6
EW
ANTENNA
CN1406
ANT1
3
2
1
ZNR1401
RCCA-201Q31UA-PI
ANTG
CN1407
1 2
L1407
VDD33
Q1404
2SD2375
R1416
1K
R1415
1K
C1426
100/16
D1402
UDZS3R9(B)
C1427
10/10
C1428
100/10
IC1402
BA00ASFP
CTL
VCC
GND
OUT
C
R1412
1K
R1414
12K
R1413
2R2K
C1429
R47
C1425
22/10
G


G TUNER UNIT
CN1412
BG1
REVERSE GEAR SENSE
REAR VIEW CAMERA IN
CN1403
V
L VIDEO IN
R
CN1402
RV
V
L REAR VIDEO OUT
R
CN1401
R1419 82
R1418 82
TP1401 TP1402
FU1401 5A CEK1289
TP1403 TP1404
FU1402 5A CEK1289
C1418 220P
C1417 220P
C1416 220P
C1415 220P
C1414 220P
R1404 0R0
Rch
Lch
BEGND
RDS_HSLK
RDS_LOCK
RDS_DATA
RDS_CK
VDD_3.3
COMP
DGND
DO
ROM_VDD
OSCGND
LDET
DI
CK
CE1
WC
CE2
SL
VCC
FM_ANT
RF_GND
AM_ANT
Y1401
Q1401
IMH2A
Q1402
IMH2A
TR1 TR2 TR3 TR4 TR5 TR6
EW
C1408 R01
C1403 100/6R3
C1404 4R7
R1417 100
R1402 470
R1403 470
L1401
C1405 R01
C1406 56/10
402
0ASFP
R1412 1K
R1414 12K
R1413 2R2K
L1406
VCC8

3.12 INVERTER PCB

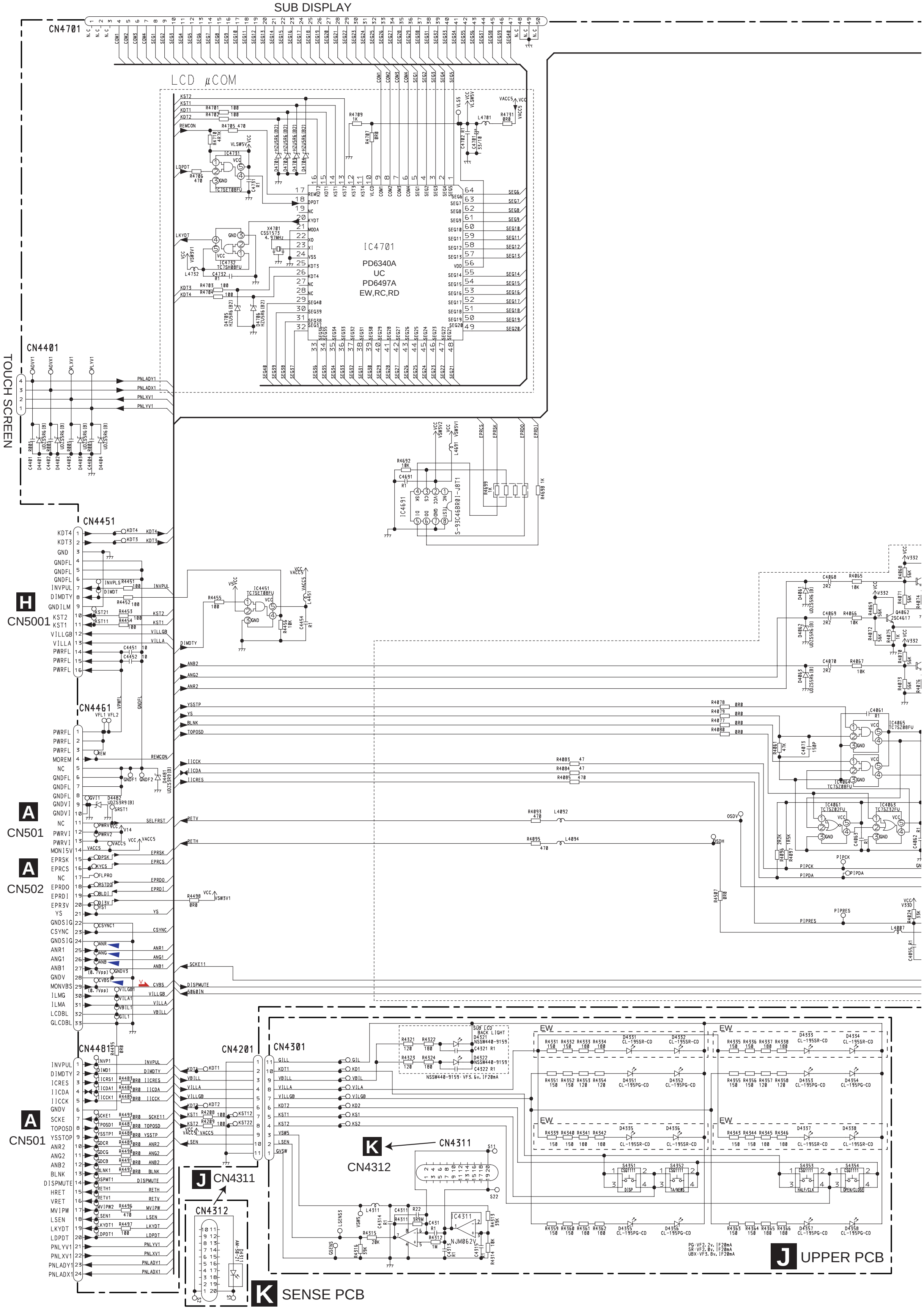

I CN4451
PWRFL
PWRFL
PWRFL
VILMA
VILMG
KS1
KS2
ILMGND
DIMDTY
INVPUL
GNDFL
GNDFL
GNDFL
GND
KD3
KD4
H INVERTER PCB
CN5001
VPPFL1
DIMDTY
INVPUL
GNDFL1
C5001
R1
C5002
IC5001 TA78L05F
3 IN
2 GND
1 OUT
R5003 47K
D5001 UDZS6R2(B)
R5005 100K
D5002 1SS355
Q5001 2SC4617
R5007 47K
Q5002 2SC4617
R5006 4R7K
C5005 1
R5009 1M
C5006 R1
C5007 1
R5008 47K
Q5003 2SA1774
C5008 3R3
R5010 33K
R5011 51K
C5011 3300P
C5012 1
ENA
C5013 1500P
IC5002 TC7SET08FU
C5014 R1
IC5003 OZ9611S
1 CTIMR
2 OVP
3 ENA
4 SST
5 VDDA
6 GNDA
7 V2500
8 RT1
9 FB
10 COMP
NDRV_B 20
PDRV_A 19
CT 18
RT 17
PGND 16
LCT 15
DIM 14
LPWM 13
PDRV_C 12
NDRV_D 11
R5014 1K
R5015 1M
C5016 R01
C5015 R047
R5016 56K
D5009 RB751V40
VR5001 CCP1397 15K(B)
C5017 220P
C5018 R047
R5017 10K
D5010 HZU6R2(B3)
D5011 HZU6R2(B3)
R5018 10K
EW
S5001 CSG1111
D5004 CL-195SR-CD
D5003 CL-195PG-CD
S5002 CSG1111
D5006 CL-195SR-CD
D5005 CL-195PG-CD
S5003 CSG1111
D5008 CL-195SR-CD
D5007 CL-195PG-CD
ENT/NAVIMENU
WIDE/POS
V.ADJ/NAVIAV
EW
R5001 180
R5002 150
R5004 180
R5022 180
R5023 220
C5019 10
C5020 10
IC5004 SI6544DQ
IC5005 SI6544DQ
C5021 1
C5022 1
T5001
D5012 HZU6R2(B3)
C5024
R022
C5023 22P
FL1
R5019 560
D5014 MA143
D5013 MA143
FL2
CN5002
LCD MODULE

MONITOR UNIT
Consists of
MONITOR PCB
UPPER PCB
SENSE PCB
INVERTER PCB

H

3.13 MONITOR PCB(GUIDE PAGE)

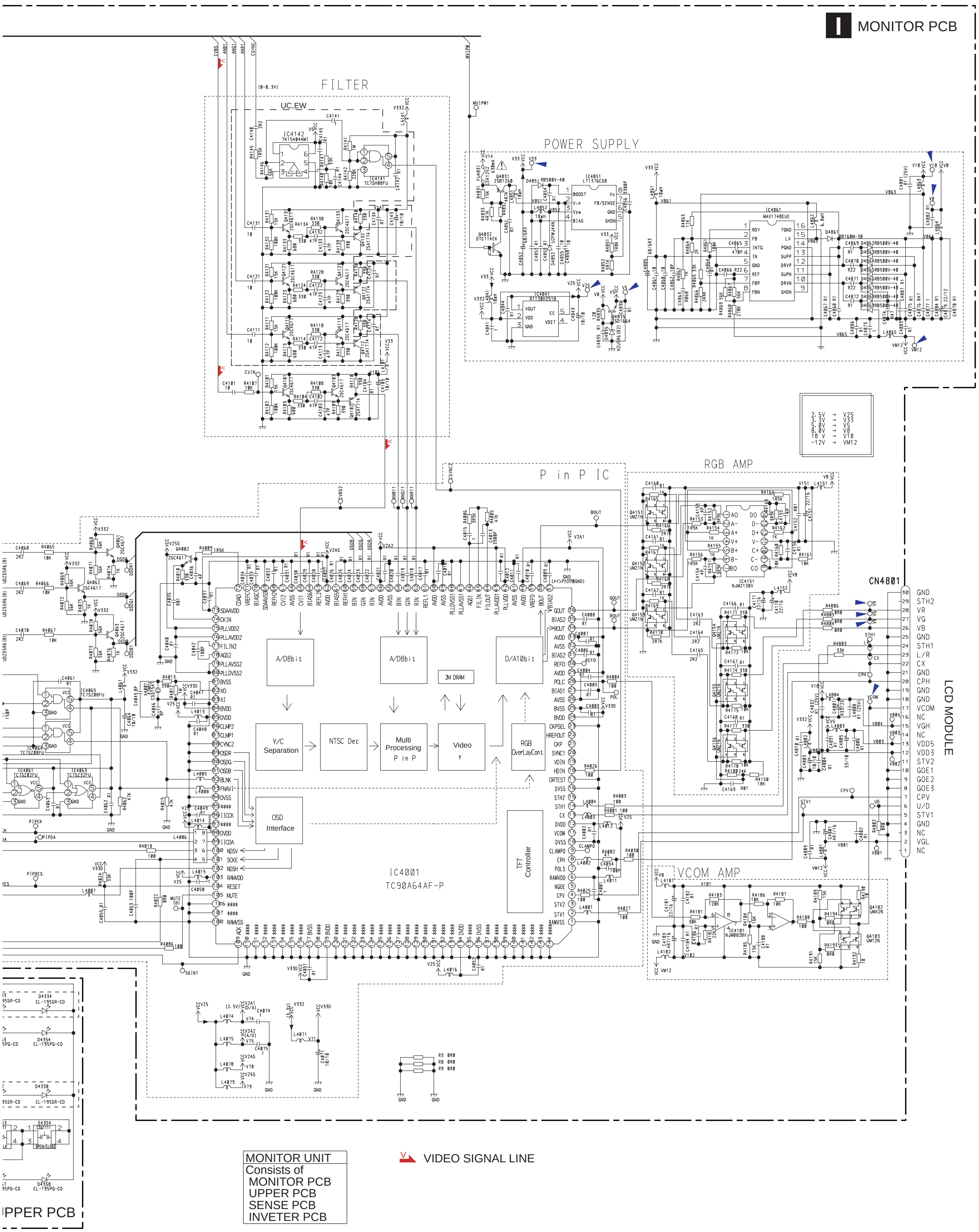
I-a


SUB DISPLAY
CN4701
LCD μCOM
IC4701
PD6340A
UC
PD6497A
EW,RC,RD
IC4731
IC4732
X4701
CN4401
TOUCH SCREEN
IC4691
S-93C46BR01-J8T1
CN4451
H
CN5001
IC4451
CN4461
A
CN501
A
CN502
CN4481
A
CN501
CN4201
CN4301
K
CN4311
CN4312
J
CN4311
CN4312
K
SENSE PCB
IC4311
NJM862V
EW
J
UPPER PCB
IC4861
IC4862
IC4863
IC4864
IC4865

I J K

A

I-b


I MONITOR PCB
FILTER
UC,EW
IC4142 TK15404AM
IC4141 TC7SH08FU
POWER SUPPLY
IC4851 LT1376CS8
IC4861 MAX1748EUE
IC4841 R1130H251B
P in P IC
RGB AMP
IC4151 NJM2130V
VCOM AMP
IC4181 NJM082BV
CN4801
LCD MODULE
A/D8bit
D/A10bit
2M DRAM
Y/C Separation
NTSC Dec
Multi Processing P in P
Video γ
RGB OverLayCont
OSD Interface
TFT Controller
IC4001 TC90A64AF-P
GND
STH2
VR
VG
VB
GND
STH1
L/R
CX
GND
CPH
GND
GND
VCOM
NC
VGH
NC
VDD5
VDD3
STV2
GOE1
GOE2
GOE3
CPV
U/D
STV1
GND
NC
VGL
NC
2.5V → V25
3.3V → V33
5V → V5
8V → V8
18V → V18
−12V → VM12
UPPER PCB

MONITOR UNIT
Consists of
MONITOR PCB
UPPER PCB
SENSE PCB
INVETER PCB

VIDEO SIGNAL LINE

B

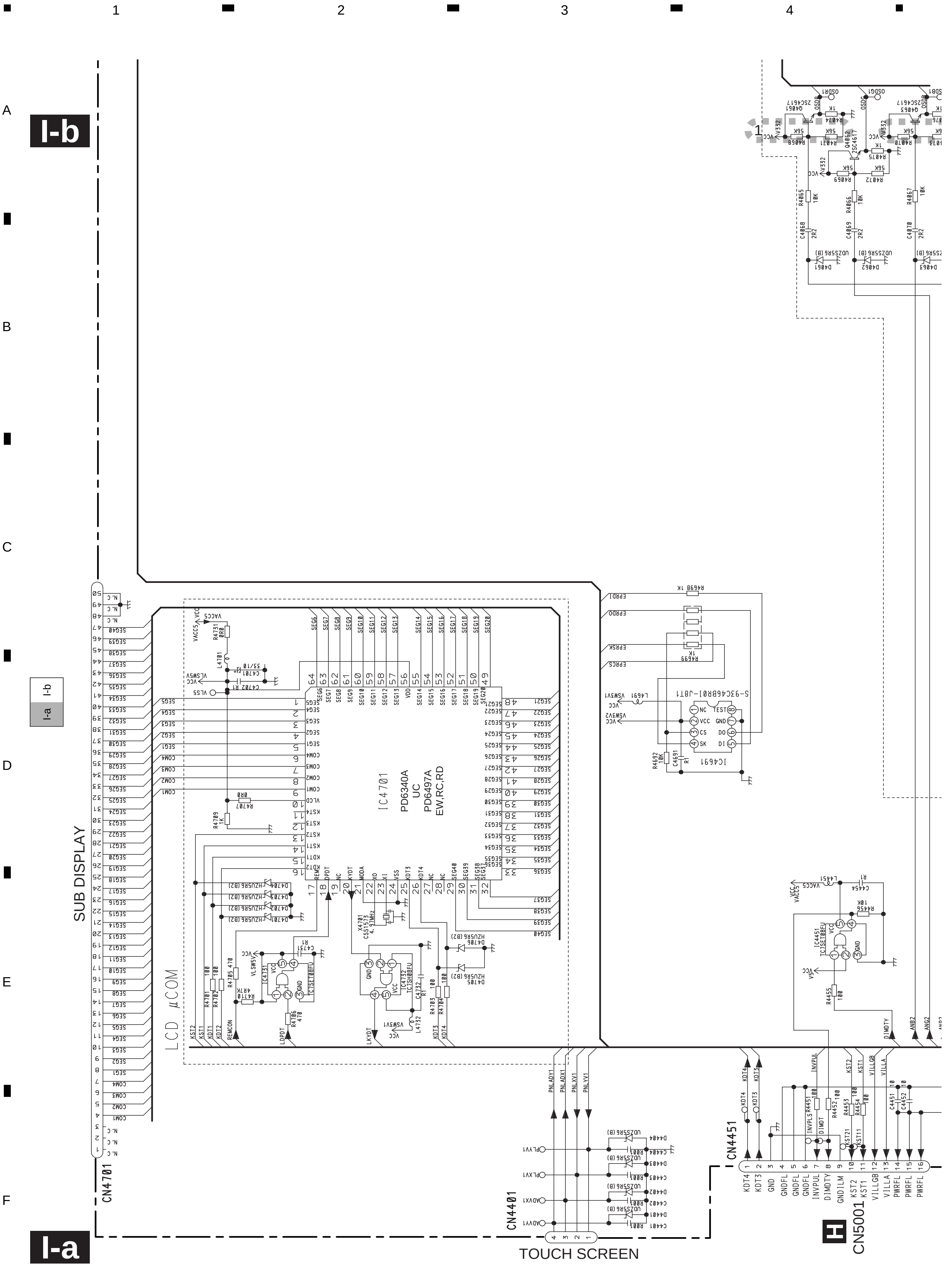
C

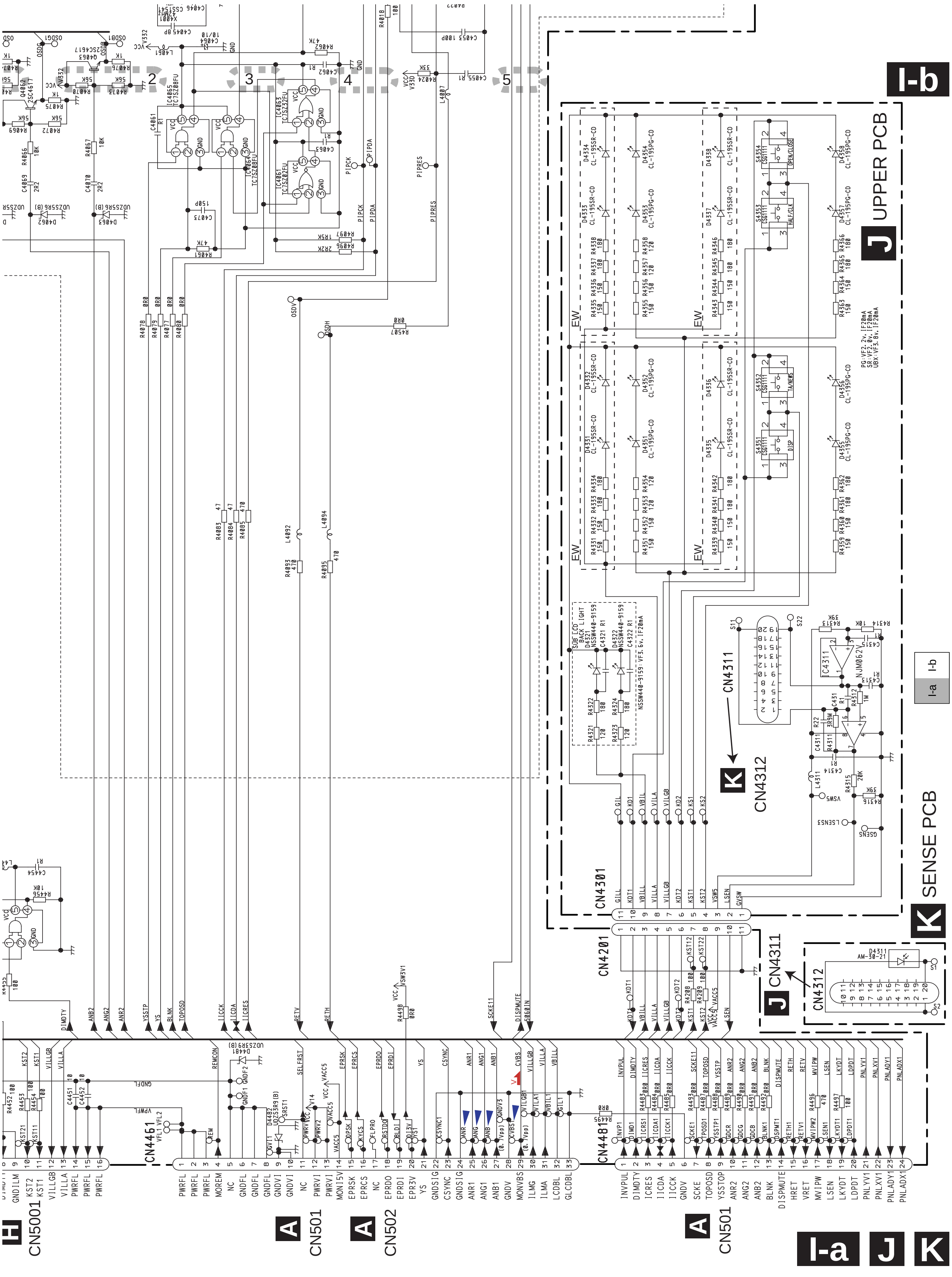
D

E

F

I


1
2
3
4
A
B
C
D
E
F
I-b
I-a
SUB DISPLAY
CN4701
LCD µCOM
IC4701
PD6340A
UC
PD6497A
EW,RC,RD
X4701
CSS1573
4.97MHz
IC4731
TC7SET08FU
IC4732
TC7SH08FU
IC4691
S-93C46BR01-J8T1
IC4451
TC7SET08FU
CN4401
TOUCH SCREEN
PNLADY1
PNLADX1
PNLXY1
PNLYY1
CN4451
CN5001
H
KDT4
KDT3
GND
GNDFL
INVPUL
DIMDTY
GNDILM
KST2
KST1
VILLGB
VILLA
PWRFL
EPRDI
EPRDO
EPRSK
EPRCS
REMCON
LDPDT
LKYDT
VACC5
VCC
VLS5
VLSW5V
VSW3V1
VSW3V2
Q4061
Q4062
Q4063
2SC4617
OSDR
OSDG
OSDB
V332
ANB2
ANG2
UDZS5R6(B)
HZU5R6(B2)


5
6
7
8
A
B
C
D
E
F
I-b
J
UPPER PCB
K
SENSE PCB
CN4301
CN4201
J CN4311
CN4312
K CN4312
CN4311
I-a
I-b
H CN5001
CN4461
A CN501
A CN502
CN4481
A CN501
I-a J K
2
3
4
5
IC4061 TC7S32FU
IC4063 TC7S32FU
IC4065 TC7S08FU
IC4064 TC7S08FU
NJM062V
S4351 DISP
S4352 TA/NEWS
S4353 HALF/CLK
S4354 OPEN/CLOSE
D4321 NSSW440-9159 BACK LIGHT
D4322 NSSW440-9159
D4311 AM-30-21
RG:VF2.2V, IF20mA
SR:VF2.0V, IF20mA
UBX:VF3.8V, IF20mA

A

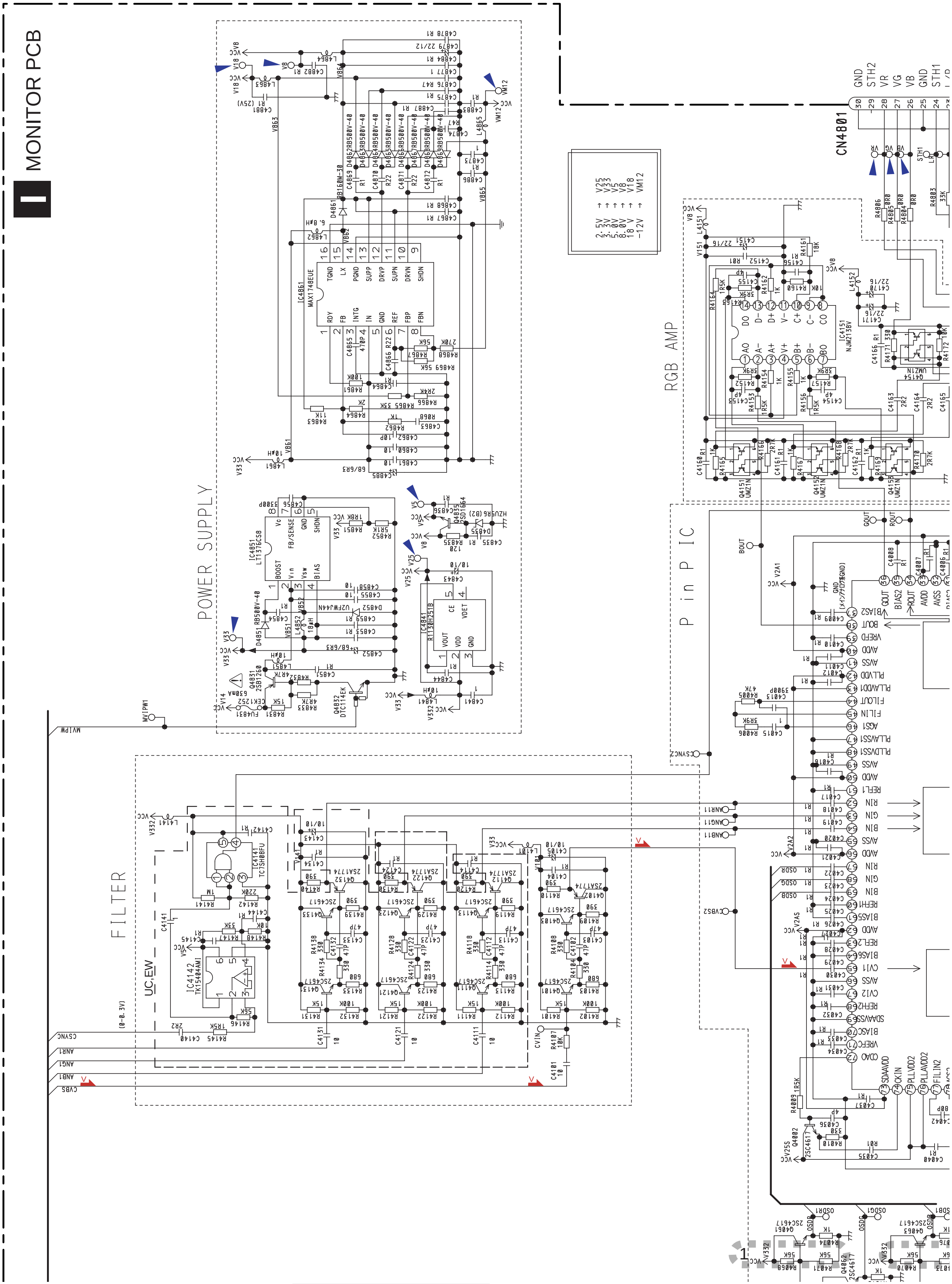
B

C

D

E

F



I
MONITOR PCB
POWER SUPPLY
RGB AMP
P in P IC
FILTER
CN4801
IC4861 MAX1748EUE
IC4851 LT1376CS8
IC4841 R1130H251B
IC4151 NJM2138V
IC4141 TC7SH08FU
IC4142 TK15404AM
2.5V → V25
3.3V → V33
5.0V → V5
8.0V → V8
18 V → V18
−12V → VM12

I-b
I-a

I-b

A

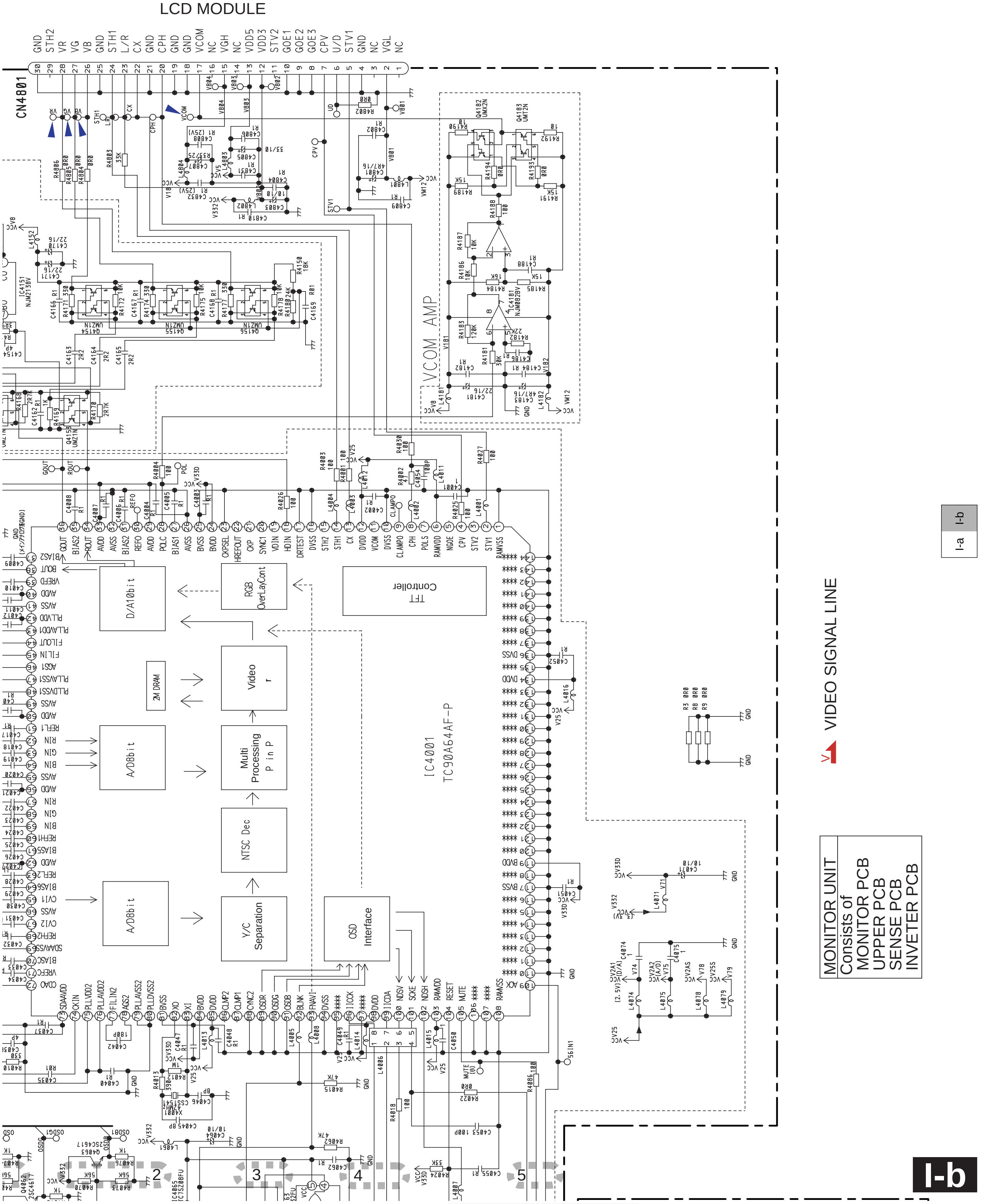
B

C

D

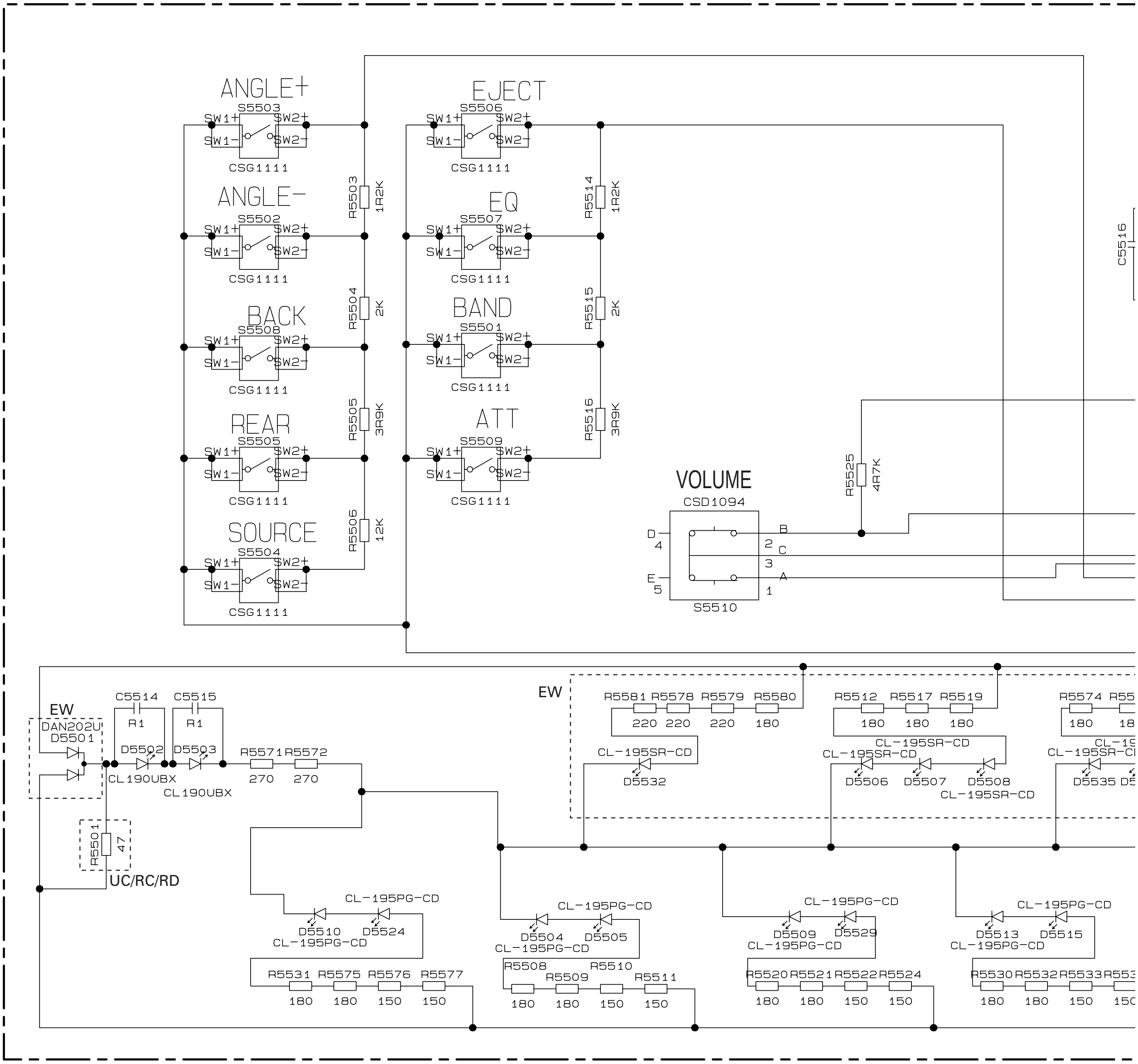
E

F

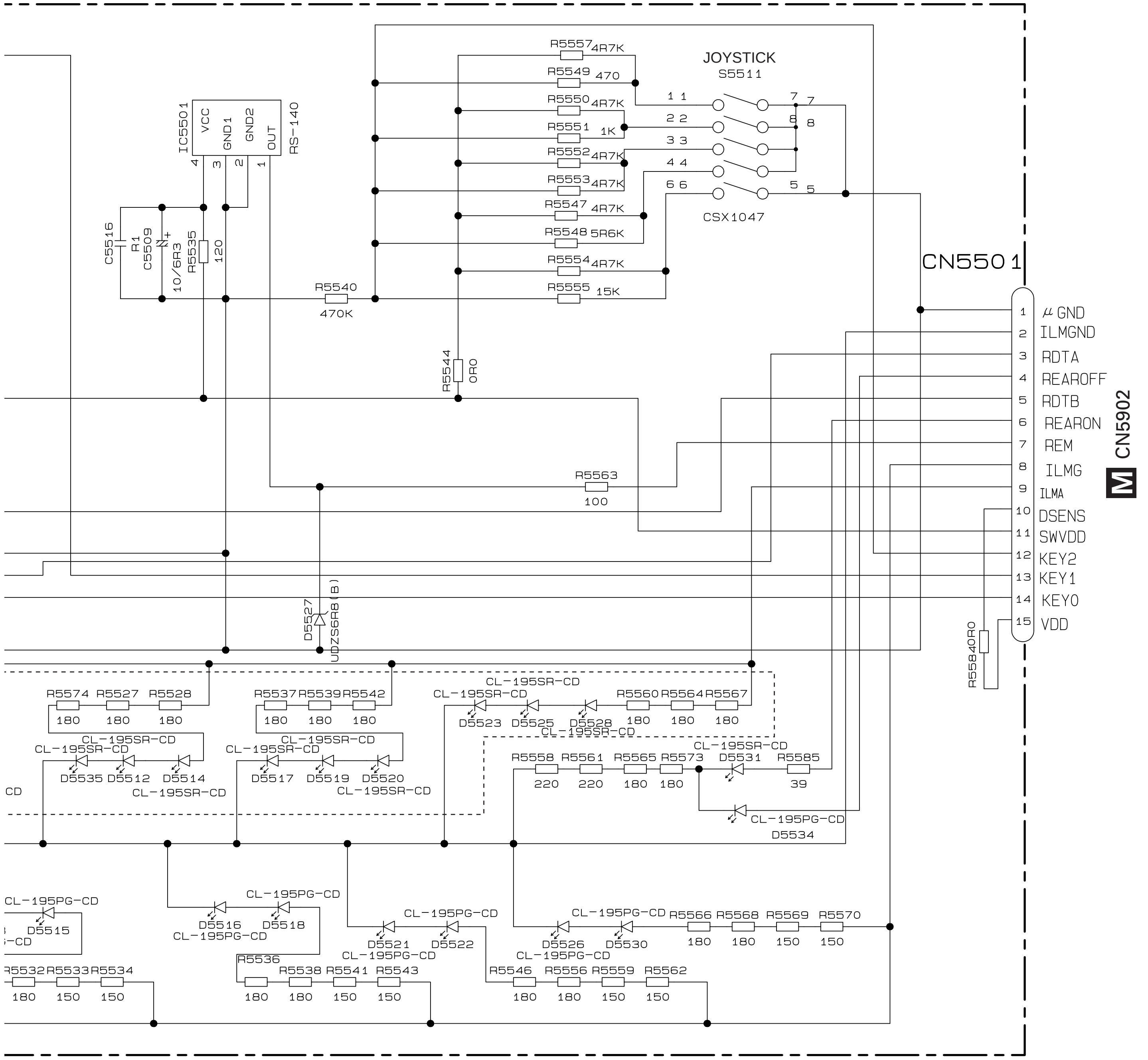

LCD MODULE
CN4801
GND STH2 VR VG VB GND STH1 L/R CX GND CPH GND GND VCOM NC VGH NC VDD5 VDD3 STV2 GOE1 GOE2 GOE3 CPV U/D STV1 GND NC VGL NC
VCOM AMP
IC4181 NJM082BV
Q4182 UMX2N
Q4183 UMT2N
IC4151 NJM2130V
Q4154 UMZ1N
Q4155 UMZ1N
Q4156 UMZ1N
IC4001
TC90A64AF-P
TFT Controller
RGB OverLayCont
D/A10bit
2M DRAM
Video r
Multi Processing P in P
A/D8bit
NTSC Dec
Y/C Separation
OSD Interface
VIDEO SIGNAL LINE
MONITOR UNIT
Consists of
MONITOR PCB
UPPER PCB
SENSE PCB
INVETER PCB
I-a
I-b
2
3
4
5

I-b

3.14 GRILLE PCB


ANGLE+
S5503
ANGLE−
S5502
BACK
S5508
REAR
S5505
SOURCE
S5504
EJECT
S5506
EQ
S5507
BAND
S5501
ATT
S5509
SW1+
SW1−
SW2+
SW2−
CSG1111
R5503 1R2K
R5504 2K
R5505 3R9K
R5506 12K
R5514 1R2K
R5515 2K
R5516 3R9K
C5516
VOLUME
CSD1094
S5510
D 4
E 5
B 2 C 3 A 1
R5525 4R7K
EW
DAN202U
D5501
R5501 47
UC/RC/RD
C5514 R1
C5515 R1
D5502
D5503
CL190UBX
CL190UBX
R5571 270
R5572 270
EW
R5581 220
R5578 220
R5579 220
R5580 180
CL−195SR−CD
D5532
R5512 180
R5517 180
R5519 180
CL−195SR−CD
CL−195SR−CD
D5506
D5507
D5508
CL−195SR−CD
R5574 180
R55
18
CL−19
CL−195SR−C
D5535 D5
CL−195PG−CD
D5510
D5524
CL−195PG−CD
R5531 180
R5575 180
R5576 150
R5577 150
CL−195PG−CD
D5504
D5505
CL−195PG−CD
R5508 180
R5509 180
R5510 150
R5511 150
CL−195PG−CD
D5509
D5529
CL−195PG−CD
R5520 180
R5521 180
R5522 150
R5524 150
CL−195PG−CD
D5513
D5515
CL−195PG−CD
R5530 180
R5532 180
R5533 150
R553 150

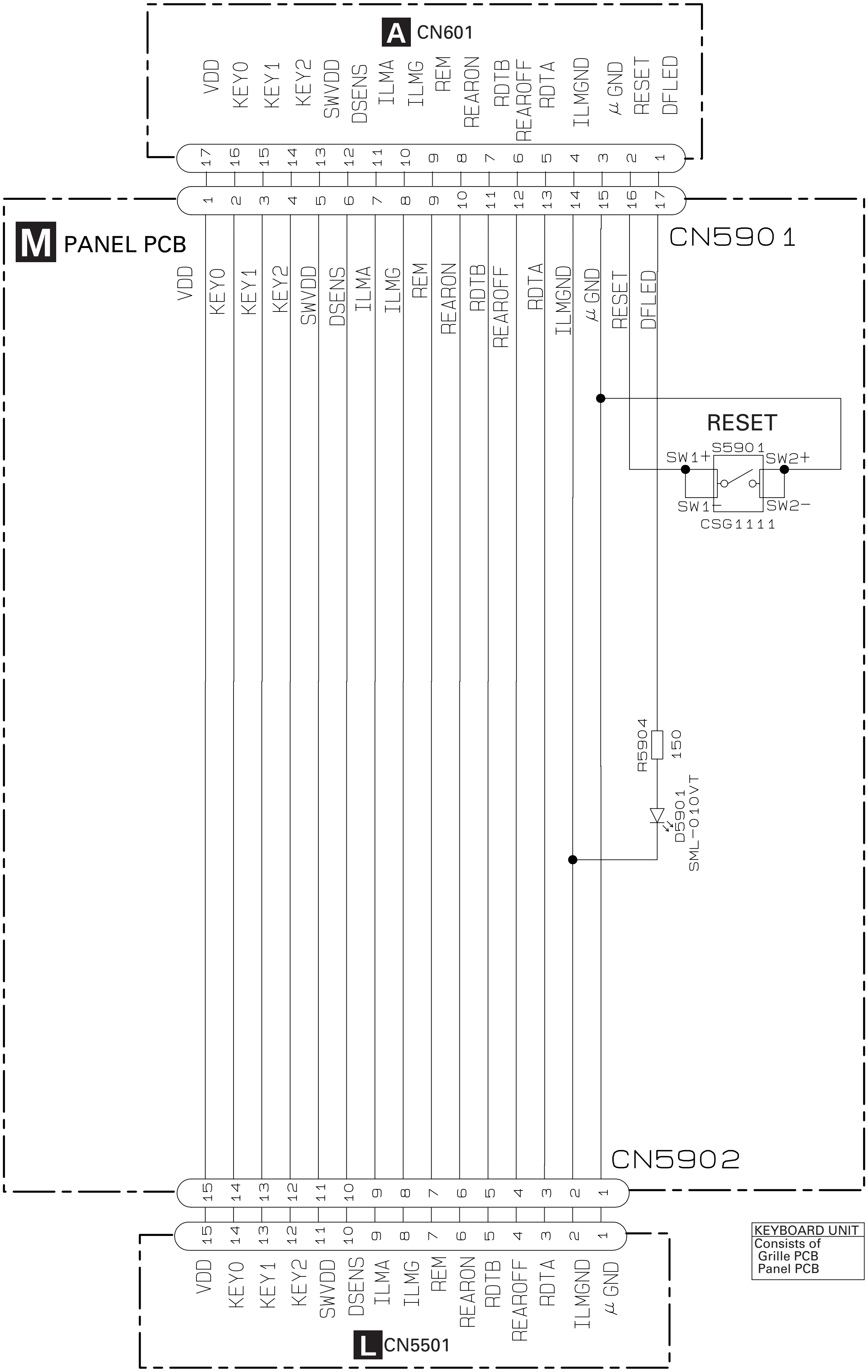
L GRILLE PCB


JOYSTICK
S5511
CSX1047
CN5501
CN5902
M
IC5501
RS-140
VCC
GND1
GND2
OUT
4 3 2 1
C5516
R1
C5509
10/6R3
R5535
120
R5540
470K
R5544
0R0
R5557 4R7K
R5549 470
R5550 4R7K
R5551 1K
R5552 4R7K
R5553 4R7K
R5547 4R7K
R5548 5R6K
R5554 4R7K
R5555 15K
11
22
33
44
66
7 7
8 8
5 5
1 μGND
2 ILMGND
3 RDTA
4 REAROFF
5 RDTB
6 REARON
7 REM
8 ILMG
9 ILMA
10 DSENS
11 SWVDD
12 KEY2
13 KEY1
14 KEY0
15 VDD
R5563
100
D5527
UDZS6R8(B)
R55840R0
R5574 R5527 R5528
180 180 180
R5537 R5539 R5542
180 180 180
R5560 R5564 R5567
180 180 180
CL-195SR-CD
D5535 D5512 D5514
D5517 D5519 D5520
D5523 D5525 D5528
R5558 R5561 R5565 R5573
220 220 180 180
D5531
R5585
39
CL-195PG-CD
D5534
CD
D5515
D5516 D5518
D5521 D5522
D5526 D5530
R5566 R5568 R5569 R5570
180 180 150 150
R5532 R5533 R5534
180 150 150
R5536
R5538 R5541 R5543
180 180 150 150
R5546 R5556 R5559 R5562
180 180 150 150

KEYBOARD UNIT
Consists of
Grille PCB
Panel PCB

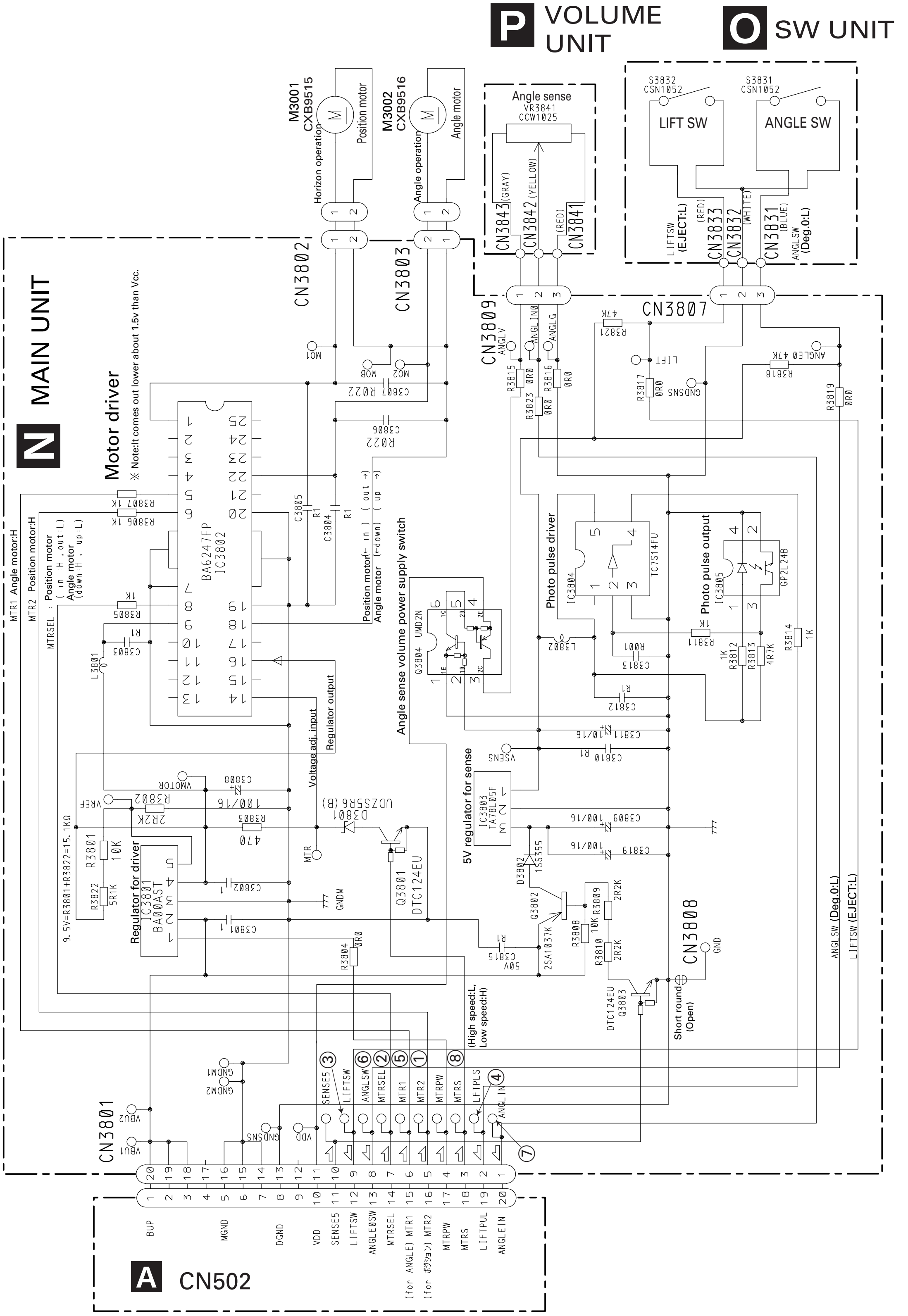
L

3.15 PANEL PCB


A CN601
VDD
KEY0
KEY1
KEY2
SWVDD
DSENS
ILMA
ILMG
REM
REARON
RDTB
REAROFF
RDTA
ILMGND
μ GND
RESET
DFLED
17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
M PANEL PCB
CN5901
VDD
KEY0
KEY1
KEY2
SWVDD
DSENS
ILMA
ILMG
REM
REARON
RDTB
REAROFF
RDTA
ILMGND
μ GND
RESET
DFLED
RESET
S5901
SW1+
SW2+
SW1−
SW2−
CSG1111
R5904
150
D5901
SML-010VT
CN5902
15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
VDD
KEY0
KEY1
KEY2
SWVDD
DSENS
ILMA
ILMG
REM
REARON
RDTB
REAROFF
RDTA
ILMGND
μ GND
L CN5501

KEYBOARD UNIT
Consists of
Grille PCB
Panel PCB

3.16 MAIN UNIT, SW UNIT AND VOLUME UNIT


P VOLUME UNIT
O SW UNIT
N MAIN UNIT
A CN502
Angle sense VR3841 CCW1025
S3832 CSN1052 LIFT SW
S3831 CSN1052 ANGLE SW
M3001 CXB9515 Position motor
Horizon operation
M3002 CXB9516 Angle motor
Angle operation
CN3802
CN3803
CN3809
CN3807
CN3843 (GRAY)
CN3842 (YELLOW)
CN3841 (RED)
CN3833 (RED)
CN3832 (WHITE)
CN3831 (BLUE)
LIFTSW (EJECT:L)
ANGLSW (Deg.0:L)
Motor driver
※ Note:It comes out lower about 1.5v than Vcc.
BA6247FP IC3802
MTR1 Angle motor:H
MTR2 Position motor:H
MTRSEL : Position motor (in :H , out:L) Angle motor (down:H , up:L)
Position motor(← in) (out →)
Angle motor (←down) (up →)
Angle sense volume power supply switch
Q3804 UMD2N
Photo pulse driver
IC3804 TC7S14FU
Photo pulse output
IC3805 GP2L24B
Voltage adj. input
Regulator output
Regulator for driver
IC3801 BA00AST
9.5V=R3801+R3822=15.1KΩ
5V regulator for sense
IC3803 TA78L05F
Q3801 DTC124EU
D3801 UDZS5R6(B)
Q3802 2SA1037K
D3802 1SS355
Q3803 DTC124EU
CN3808
Short round (Open)
(High speed:L, Low speed:H)
CN3801
BUP
MGND
DGND
VDD
SENSE5
LIFTSW
ANGLE0SW
MTRSEL
(for ANGLE) MTR1
(for ポジション) MTR2
MTRPW
MTRS
LIFTPUL
ANGLEIN

NOP

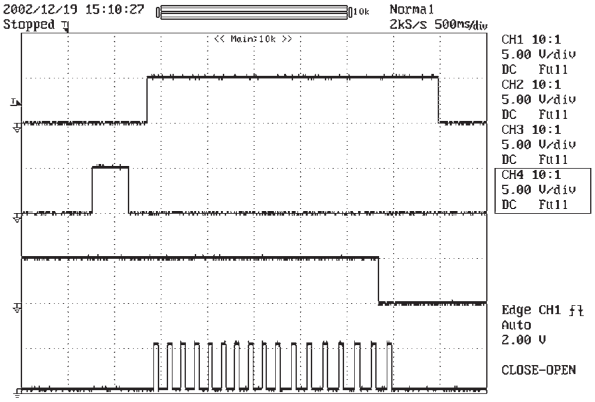
● Waveforms

The encircled number denote measuring pointes in the circuit diagram.

• CLOSE -> OPEN

① CH1:MTR2 ② CH2:MTRSEL

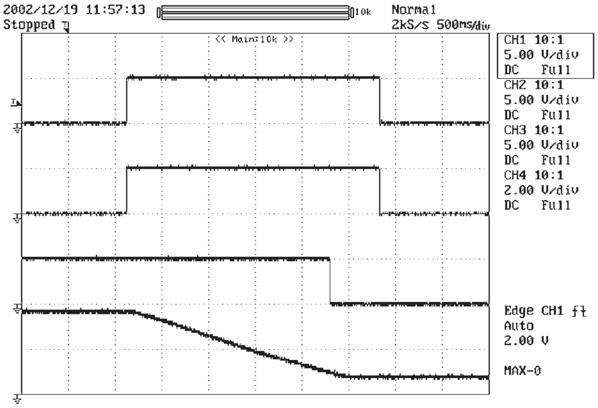
③ CH3:LIFTSW ④ CH4:LFTPLS



• MAX -> Deg.0 DOWN

⑤ CH1:MTR1 ② CH2:MTRSEL

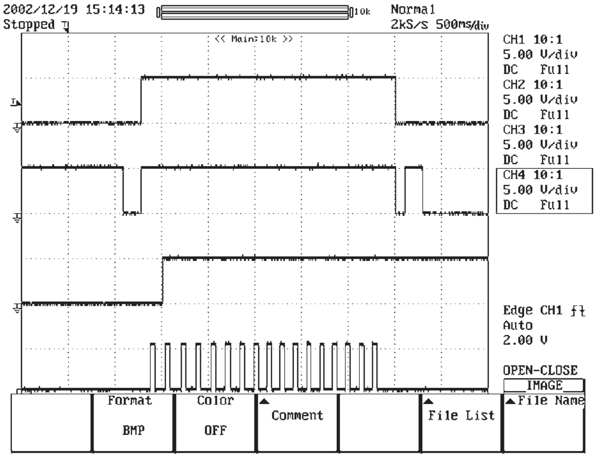
⑥ CH3:ANGLSW ⑦ CH4:ANGLIN



• OPEN -> CLOSE

① CH1:MTR2 ② CH2:MTRSEL

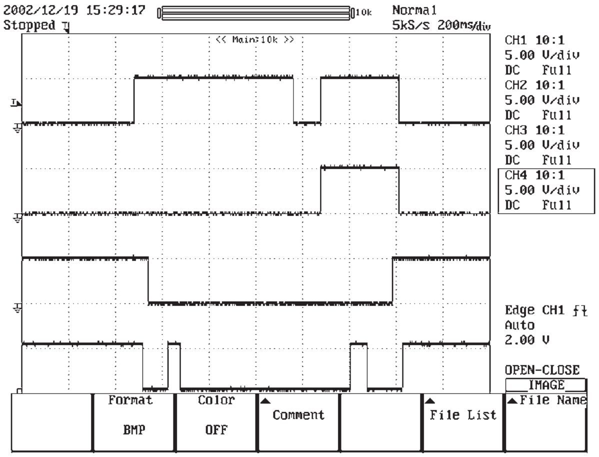
③ CH3:LIFTSW ④ CH4:LFTPLS



• Set back open -> Set

① CH1:MTR2 ⑧ CH2:MTRS

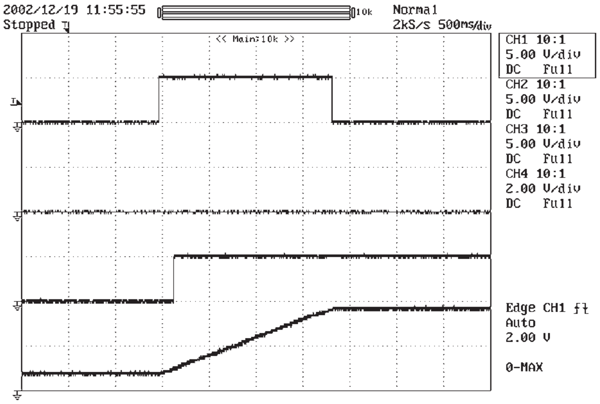
③ CH3:LIFTSW ④ CH4:LFTPLS



• 0->MAX

⑤ CH1:MTR1 ② CH2:MTRSEL

⑥ CH3:ANGLSW ⑦ CH4:ANGLIN

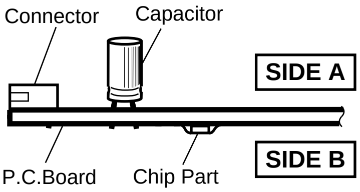


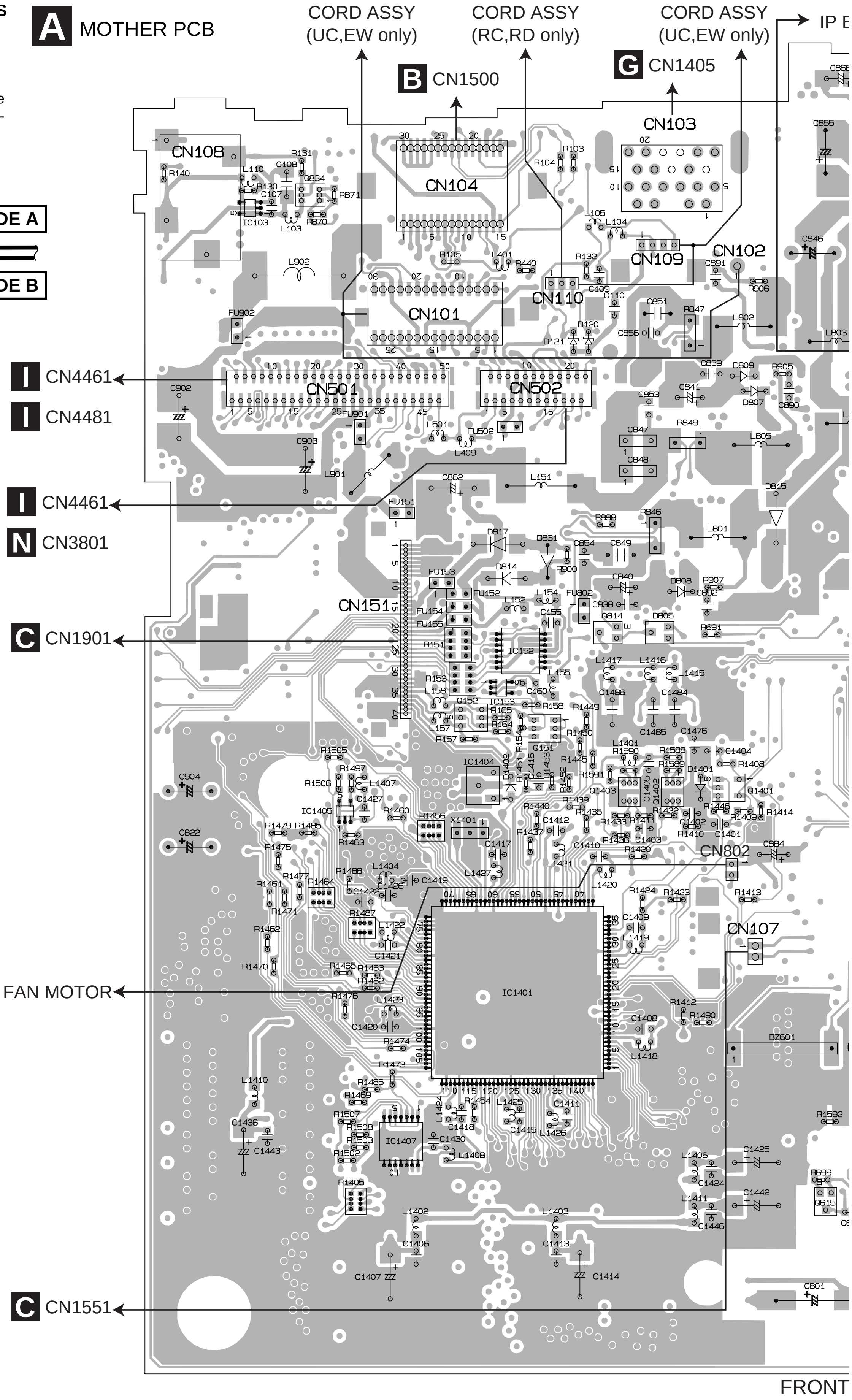
4. PCB CONNECTION DIAGRAM

4.1 MOTHER PCB

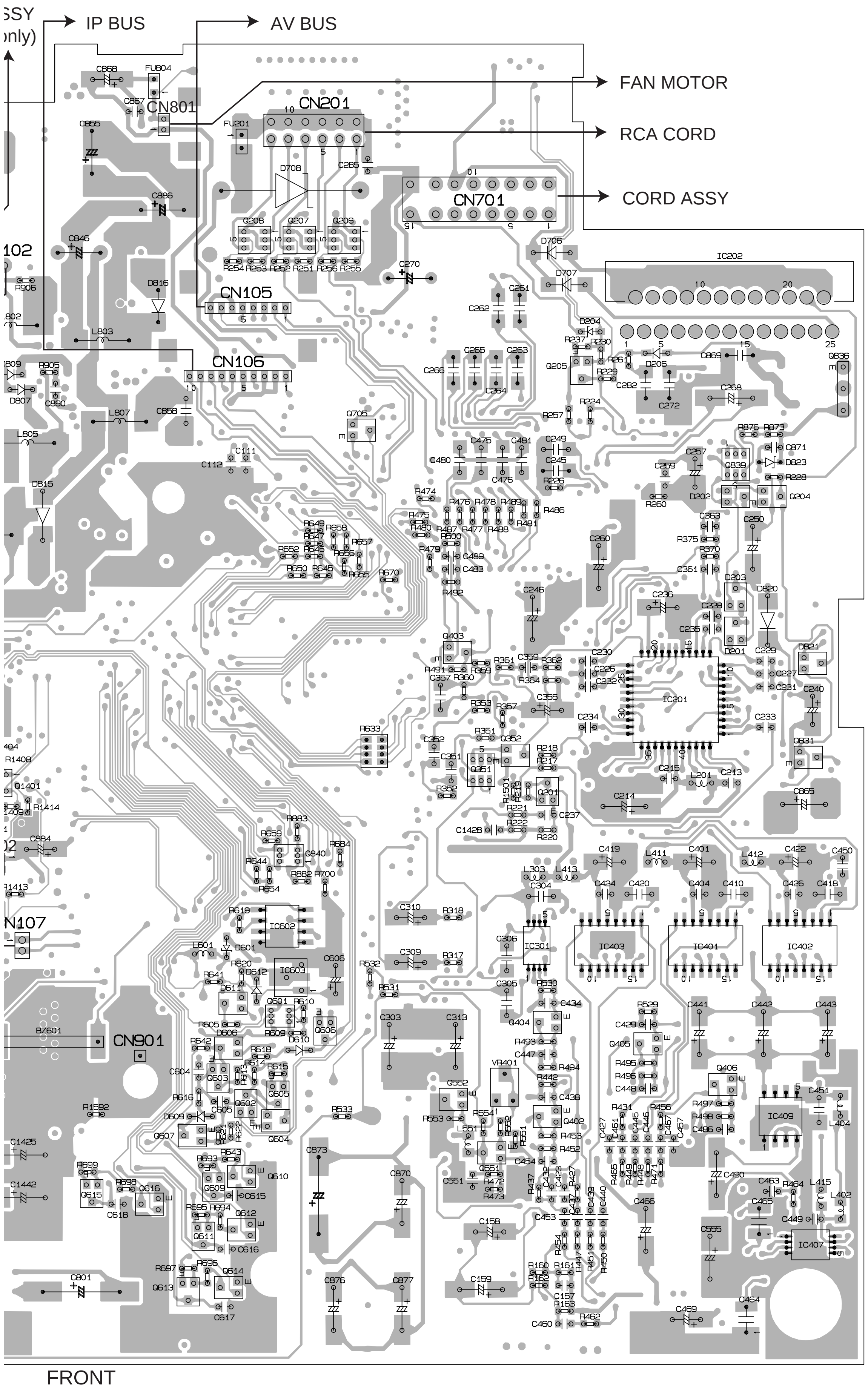
NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams


Connector
Capacitor
SIDE A
SIDE B
P.C.Board
Chip Part


A MOTHER PCB
CORD ASSY (UC,EW only)
CORD ASSY (RC,RD only)
CORD ASSY (UC,EW only)
IP B
B CN1500
G CN1405
CN108
CN104
CN103
CN109
CN102
CN110
CN101
I CN4461
I CN4481
CN501
CN502
I CN4461
N CN3801
CN151
C CN1901
IC152
IC153
IC1404
IC1405
CN802
CN107
IC1401
FAN MOTOR
IC1407
BZ601
C CN1551
FRONT

SIDE A


SSY
nly)
IP BUS
AV BUS
FAN MOTOR
RCA CORD
CORD ASSY
CN801
CN201
CN701
CN105
CN106
CN107
CN901
IC202
IC201
IC301
IC403
IC401
IC402
IC602
IC603
IC409
IC407
D708
FU804
FU201
BZ601
VR401
FRONT

IC,Q

Q834

IC103

Q208 Q207 Q206

IC202

Q836

Q205

Q705

Q839

Q204

Q814

Q403

IC152

Q152 IC153 IC201

Q352 Q831 Q151

IC1404 Q1402

Q351

Q1401 Q1403 Q201

IC1405

Q840

IC301

IC602

IC403 IC401 IC402

IC603

IC1401

Q601

Q404

Q405 Q603

Q606 VR401 Q406

Q552 Q602

Q605

IC409 Q402

IC1407 Q607 Q551 Q604

Q610

Q609 Q616 Q615

Q612

Q611

IC407

Q614

Q613

A

A

A MOTHER PCB

IC,Q

Q901

Q825

Q824

Q301

B

Q833

Q902

Q827 Q823

Q101 Q837

Q103 IC101 Q102

Q835 IC802

Q810 Q808 Q702

Q822 Q704 Q701

IC102 Q809

Q817 Q818 IC203 Q811 Q703

Q813

C

Q819 IC353

IC803 IC411 Q821

Q202 IC804

Q805 Q815

Q209 Q302 Q816

Q829 Q803 Q802 Q203 Q617

Q812 IC352 IC351

IC601 Q807 Q844 IC801

Q845 Q1405 Q843 Q1406 Q830

Q1407 Q353 Q801

Q806 Q842

IC806 Q832

D

IC1408 Q828

Q303

IC1451 IC1414

Q608

E

IC1403

IC410 IC405 IC404 IC406

IC805

IC1452

Q401

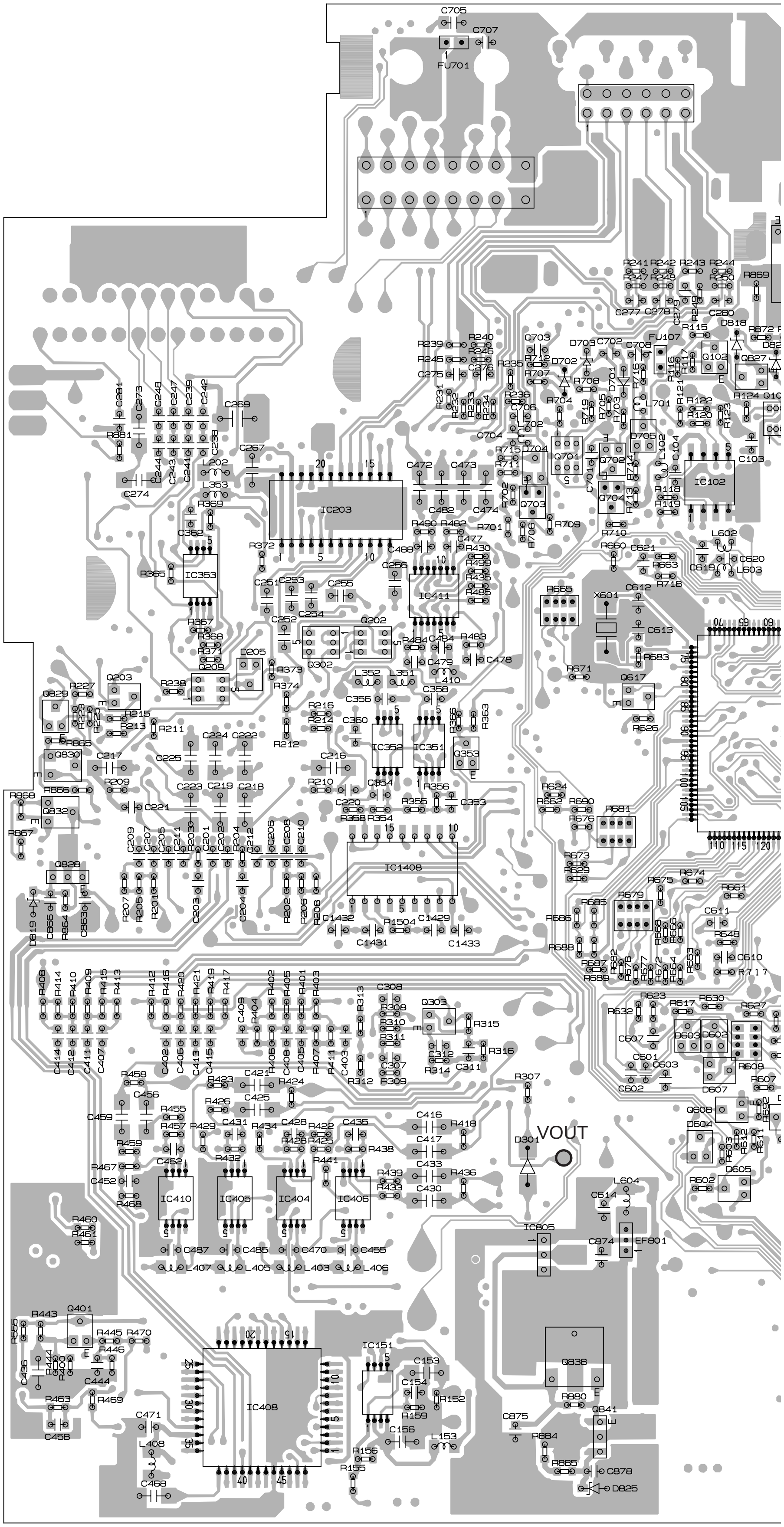
IC151

Q838

IC1411

Q841 IC408 IC1410

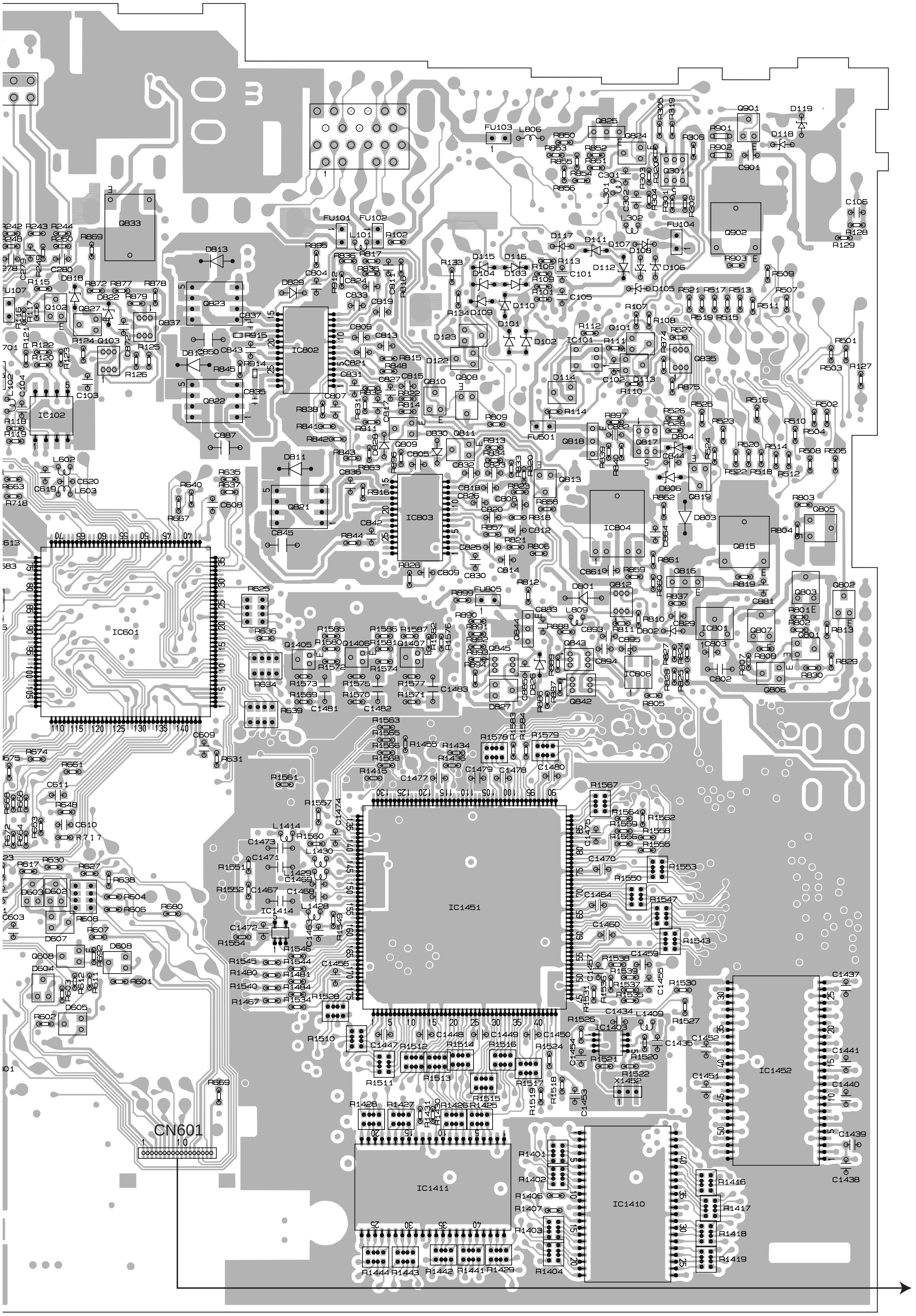
F



C705
C707
FU701
IC203
IC353
IC411
IC102
Q701
Q702
Q703
Q704
X601
Q202
Q302
Q209
Q203
Q829
Q830
Q832
Q828
IC352
IC351
Q353
Q617
IC1408
Q303
Q608
VOUT
D301
IC410
IC405
IC404
IC406
IC805
EF801
Q401
IC408
IC151
Q838
Q841
D825

A

SIDE B


CN601
IC601
IC802
IC803
IC804
IC1451
IC1452
IC1411
IC1410
IC102
IC101
IC806
IC801
IC1403
IC1414

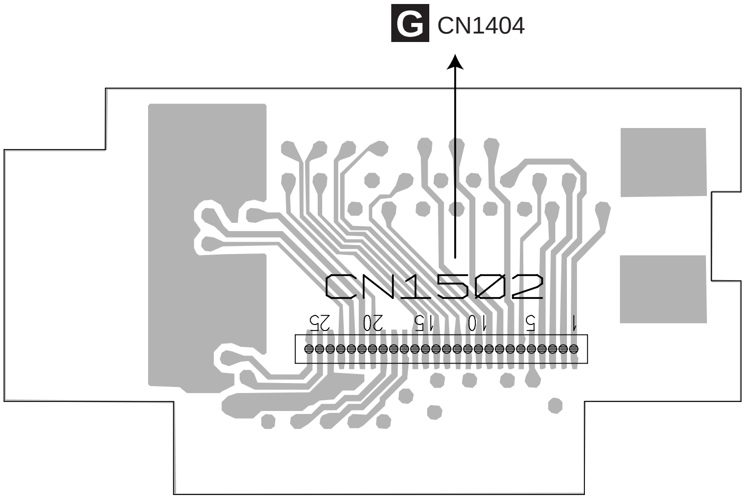
M CN5901

A B C D E F

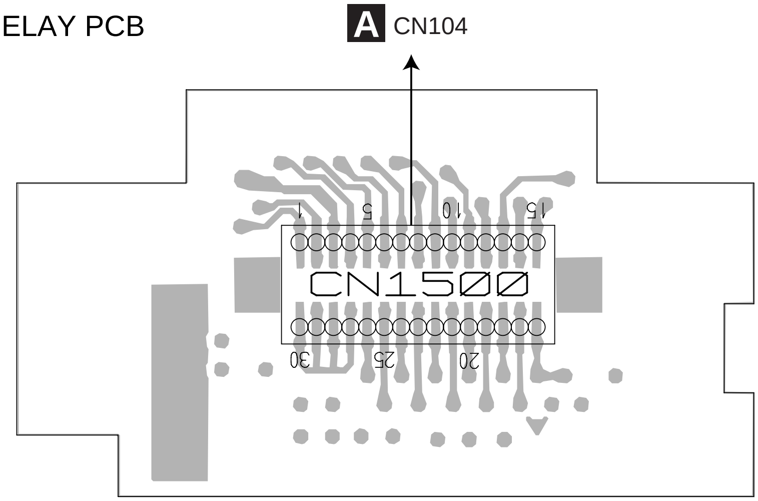
A

4.2 RELAY PCB

B RELAY PCB **SIDE A**


G CN1404
CN1502
25
20
15
10
5
1

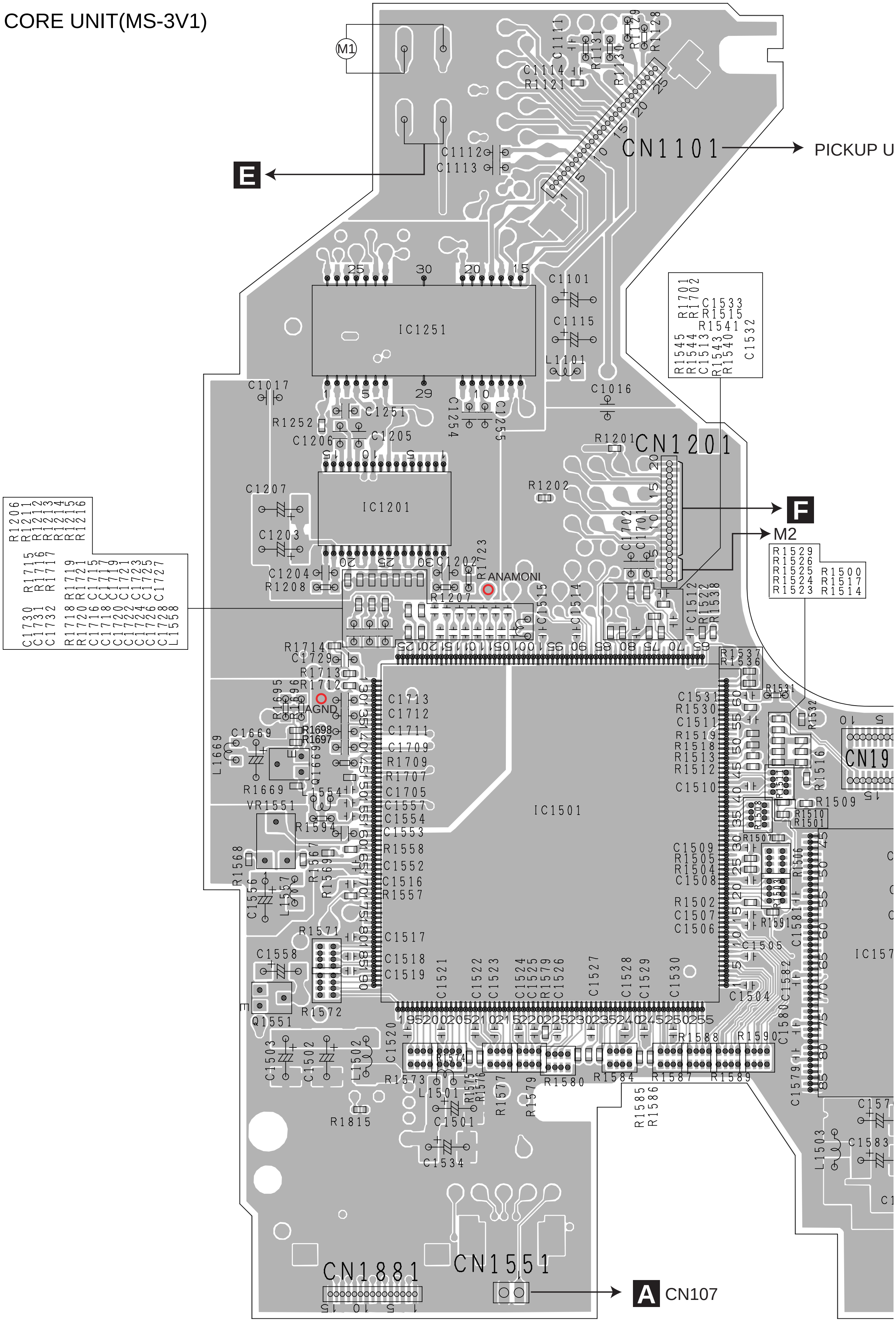
B RELAY PCB **SIDE B**


A CN104
CN1500
1
5
10
15
30
25
20

B

4.3 DVD CORE UNIT(MS-3V1)

C DVD CORE UNIT(MS-3V1)


M1
E
CN1101
PICKUP U
C1111
C1114
R1121
R1131
R1130
R1129
R1128
C1112
C1113
IC1251
C1101
C1115
L1101
C1016
C1017
R1252
C1251
C1206
C1205
C1254
C1255
R1201
CN1201
IC1201
C1207
C1203
C1204
R1208
R1202
C1202
R1207
R1723
ANAMONI
F
M2
R1701 R1702 C1533 R1515 R1541 C1532 R1545 R1544 C1513 R1543 R1540
R1529 R1526 R1525 R1523 R1500 R1517 R1514
R1206 R1211 R1212 R1213 R1214 R1215 R1216
R1715 R1716 R1717
R1719 R1721 C1715 C1719 C1721 C1723 C1725 C1727
C1730 C1731 C1732
R1718 R1720 C1716 C1718 C1720 C1722 C1724 C1726 C1728 L1558
R1714
C1729
R1713
R1712
R1695
R1696
AGND
R1698
R1697
C1669
L1669
Q1669
R1669
VR1551
R1594
R1568
R1567
R1569
C1556
L1557
C1713 C1712 C1711 C1709 R1709 R1707 C1705 C1557 C1554 C1553 R1558 C1552 C1516 R1557 C1517 C1518 C1519
IC1501
C1531 R1530 C1511 R1519 R1518 R1513 R1512 C1510 C1509 R1505 R1504 C1508 R1502 C1507 C1506
R1537 R1536 R1531 R1532 R1516 R1509 R1510 R1501 R1507 R1506 R1591 C1505 C1504
CN19
IC157
C1521 C1522 C1523 C1524 C1525 R1579 C1526 C1527 C1528 C1529 C1530
R1571
C1558
Q1551
R1572
C1503 C1502 L1502 C1520
R1573 R1574 R1575 R1576 R1577 R1579 R1580 R1584 R1587 R1589 R1588 R1590
R1585 R1586
C1581 C1582 C1580 C1579
L1501
C1501
C1534
R1815
C157 C1583 L1503 C1
CN1881
CN1551
A CN107

C

SIDE A

A

IC,Q

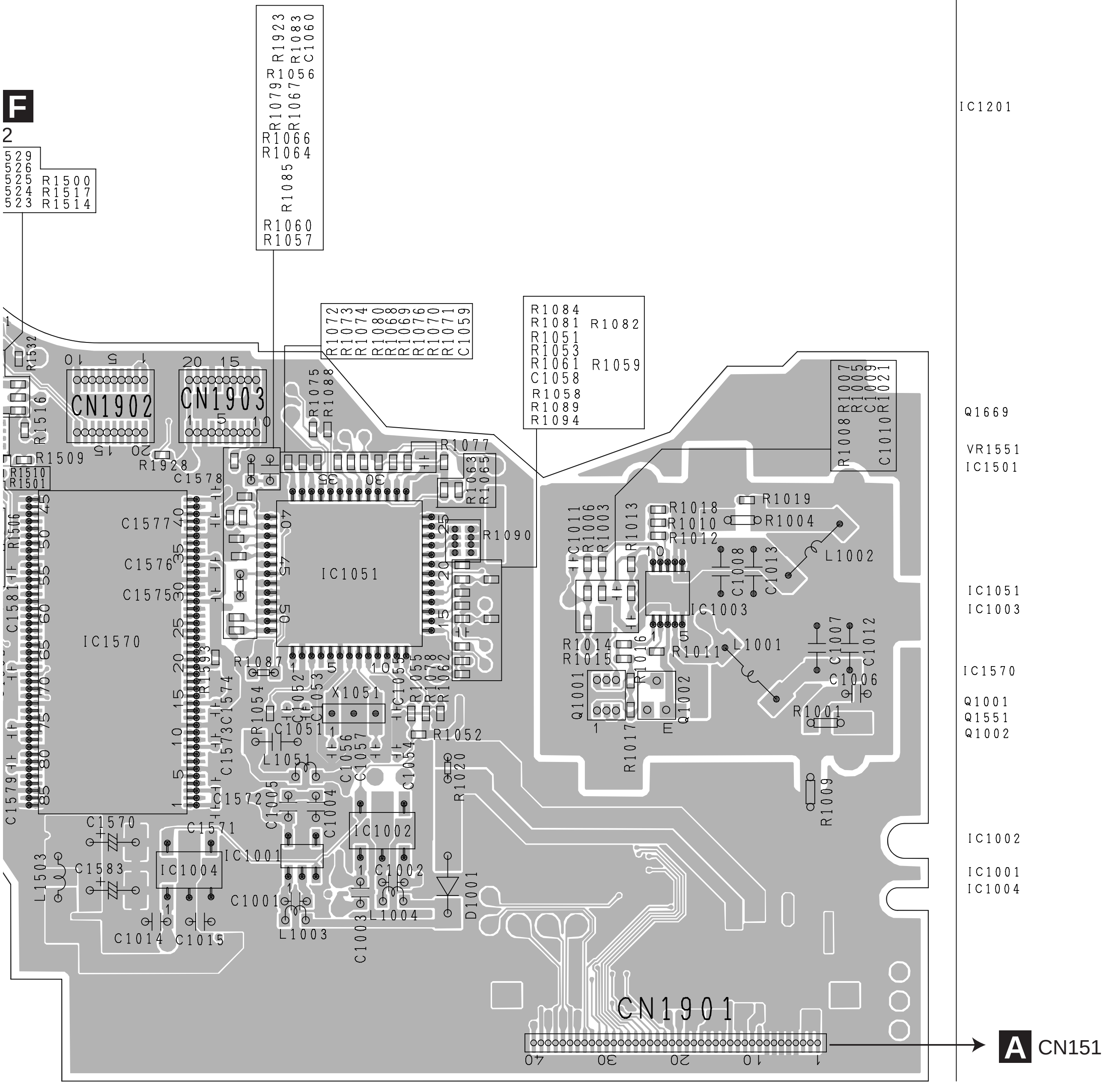
➔ PICKUP UNIT(SERVICE)

B

IC1251

IC1201

C


F
2
529
526
525 R1500
524 R1517
523 R1514
R1923
R1083
C1060
R1056
R1079
R1067
R1066
R1064
R1085
R1060
R1057
R1072
R1073
R1074
R1080
R1068
R1069
R1076
R1070
R1071
C1059
R1084
R1081 R1082
R1051
R1053
R1061 R1059
C1058
R1058
R1089
R1094
R1008
R1007
R1005
C1009
C1010
R1021
R1532
R1516
R1509
R1510
R1501
R1506
CN1902
CN1903
R1075
R1088
R1928
C1578
R1077
R1063
R1065
R1090
C1577
C1576
C1575
C1581
C1579
IC1570
IC1051
R1087
R1054
C1052
C1053
X1051
C1055
R1055
R1078
R1062
C1051
L1051
C1056
C1057
C1054
R1052
R1020
C1573
C1574
C1572
C1570
C1571
C1583
L1503
IC1004
IC1001
C1005
C1004
IC1002
C1002
C1001
C1003
L1003
L1004
C1014
C1015
D1001
C1011
R1006
R1003
R1013
R1018
R1010
R1012
R1019
R1004
L1002
C1008
C1013
IC1003
R1014
R1015
R1016
R1011
L1001
C1007
C1012
C1006
Q1001
Q1002
R1017
R1001
R1009
CN1901
40 30 20 10 1
A CN151

D

Q1669

VR1551
IC1501

IC1051
IC1003

E

IC1570

Q1001
Q1551
Q1002

IC1002

IC1001
IC1004

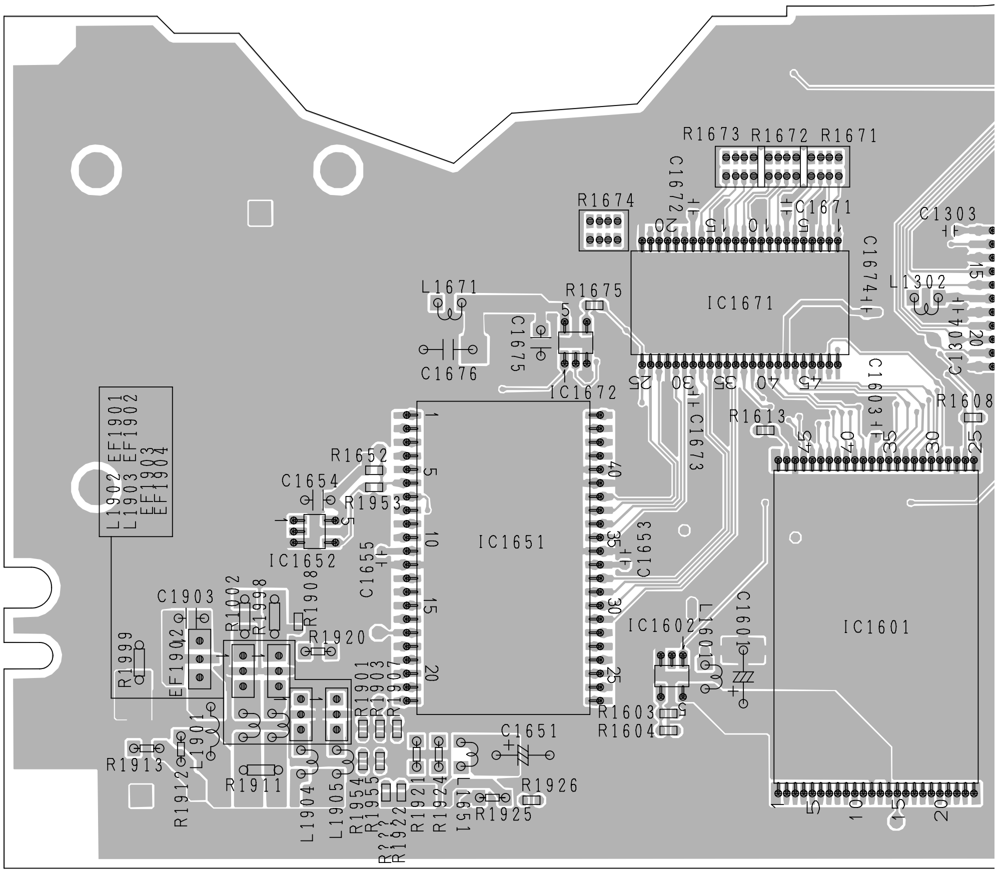
F

C

IC,Q
Q1101
Q1106
Q1102
Q1107
Q1103
Q1105
Q1104
IC1852
IC1851
Q1851
IC1301 Q1852
IC1671
IC1672
IC1108 IC1853
Q1853 IC1882
IC1802
IC1651
IC1652
IC1881
IC1601
IC1602
IC1231

C DVD CORE UNIT(MS-3V1)

R1103 R1102R1108R1107 C1109
R1104 R1105R1109R1110 R1111 R1113


R1673
R1672
R1671
R1674
C1672
C1671
C1303
C1674
L1302
IC1671
L1671
R1675
C1675
C1676
IC1672
C1603
R1613
C1673
R1608
R1652
C1654
R1953
IC1652
C1655
IC1651
C1653
IC1602
L1601
C1601
IC1601
R1603
R1604
C1651
R1926
R1925
L1651
EF1901
EF1902
EF1903
EF1904
L1902
L1903
R1999
EF1902
C1903
R1002
R1998
R1908
R1920
R1901
R1903
R1907
R1913
L1901
R1912
R1911
L1904
L1905
R1954
R1955
R1921
R1924
R1922

SIDE B

A

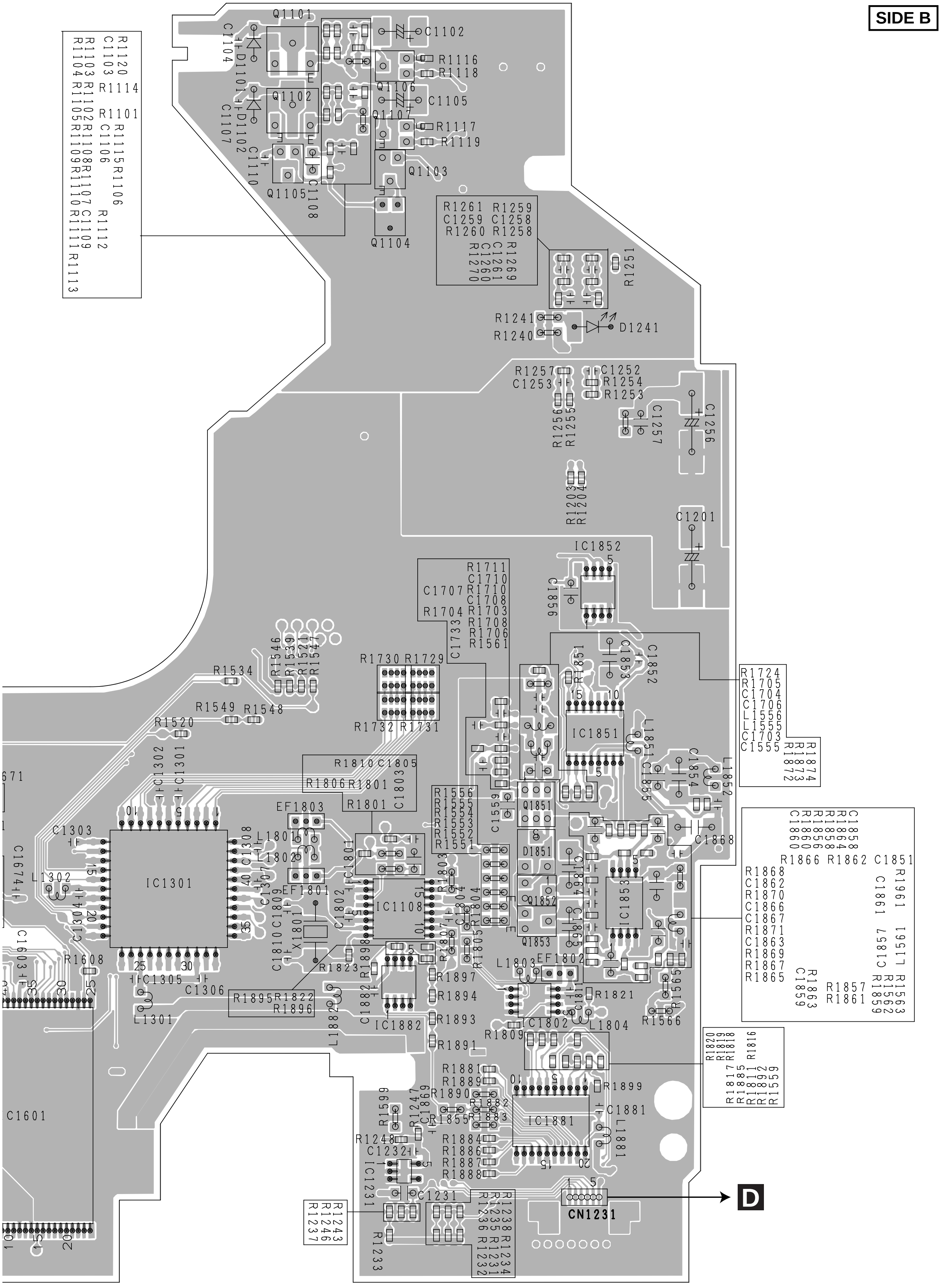
B

C

D

E

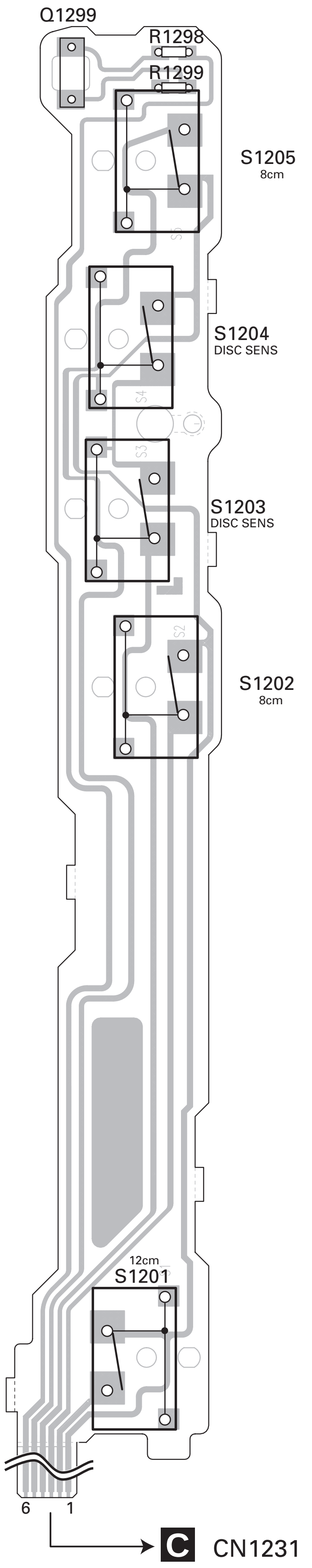
F


Q1101
C1102
R1116
R1118
Q1106
C1105
Q1102
Q1107
R1117
R1119
Q1103
Q1105
Q1104
C1104
D1101
D1102
C1107
C1110
C1108
R1120
C1103
R1114
R1101
R1103
R1102
R1104
R1105
R1108
R1115
R1106
C1106
R1109
R1107
R1110
C1109
R1112
R1111
R1113
R1261
R1259
C1259
C1258
R1260
R1258
R1269
C1261
C1260
R1270
R1251
R1241
R1240
D1241
R1257
C1253
C1252
R1254
R1253
R1256
R1255
C1257
C1256
R1203
R1204
C1201
IC1852
C1856
R1711
C1710
C1707
R1710
C1708
R1704
R1703
R1708
R1706
R1561
C1733
R1730
R1729
R1732
R1731
R1546
R1539
R1521
R1547
R1534
R1549
R1548
R1520
R1851
C1853
C1852
IC1851
L1851
C1854
C1855
L1852
R1724
R1705
C1704
C1706
L1556
L1555
C1703
C1555
R1874
R1873
R1872
R1810
C1805
R1806
R1801
C1803
R1801
C1302
C1301
EF1803
L1801
L1802
C1801
EF1801
C1303
IC1301
C1308
C1307
C1309
L1302
C1304
C1674
C1603
671
R1556
R1555
R1554
R1553
R1552
R1551
C1559
Q1851
D1851
Q1852
Q1853
C1868
IC1853
C1864
C1863
C1858
R1864
R1858
R1856
R1860
R1866
R1862
C1851
R1868
C1862
R1870
C1866
C1867
R1871
C1863
R1869
R1867
R1865
C1861
C1857
R1961
L1951
R1863
C1859
R1857
R1861
R1563
R1562
R1559
IC1108
C1802
R1803
C1804
R1804
R1807
R1805
C1809
C1810
X1801
R1898
R1823
R1608
C1305
C1306
L1301
R1895
R1822
R1896
C1882
L1882
IC1882
R1897
R1894
R1893
R1891
L1803
EF1802
C1811
R1821
IC1802
L1804
R1809
R1565
R1566
R1820
R1819
R1818
R1816
R1817
R1885
R1811
R1892
R1559
C1601
R1599
R1247
C1869
R1881
R1889
R1890
R1882
R1855
R1883
R1248
R1884
R1886
R1887
R1888
C1232
IC1231
C1231
IC1881
R1899
C1881
L1881
CN1231
D
R1243
R1246
R1237
R1233
R1238
R1235
R1236
R1234
R1231
R1232
1
5
10
15
20
25
30
35
40

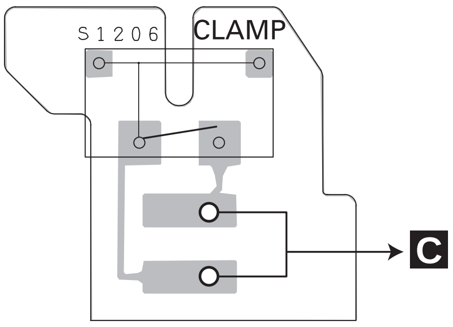
C

4.4 COMPOUND UNIT(A), COMPOUND UNIT(B) AND RELAY PCB

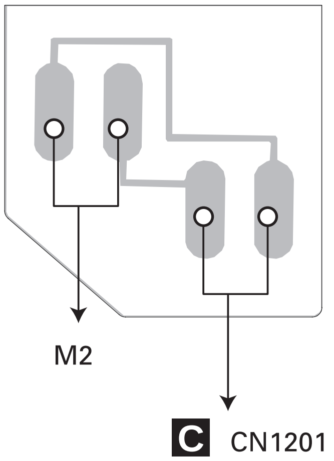
D COMPOUND UNIT(A)


Q1299
R1298
R1299
S1205
8cm
S1204
DISC SENS
S1203
DISC SENS
S1202
8cm
12cm
S1201
6
1
C
CN1231

E COMPOUND UNIT(B)


S1206
CLAMP
C

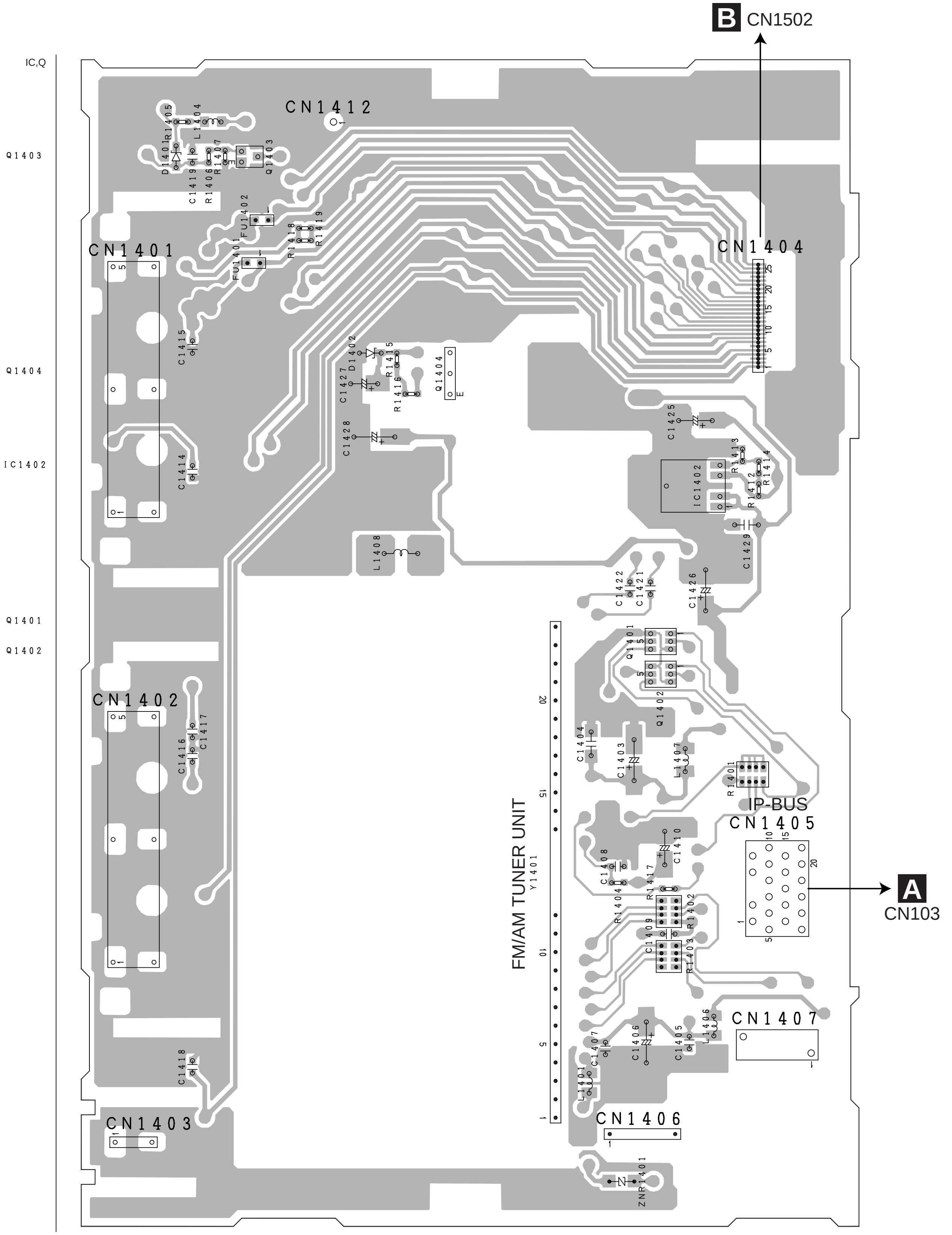
F RELAY PCB



4.5 TUNER UNIT

G TUNER UNIT

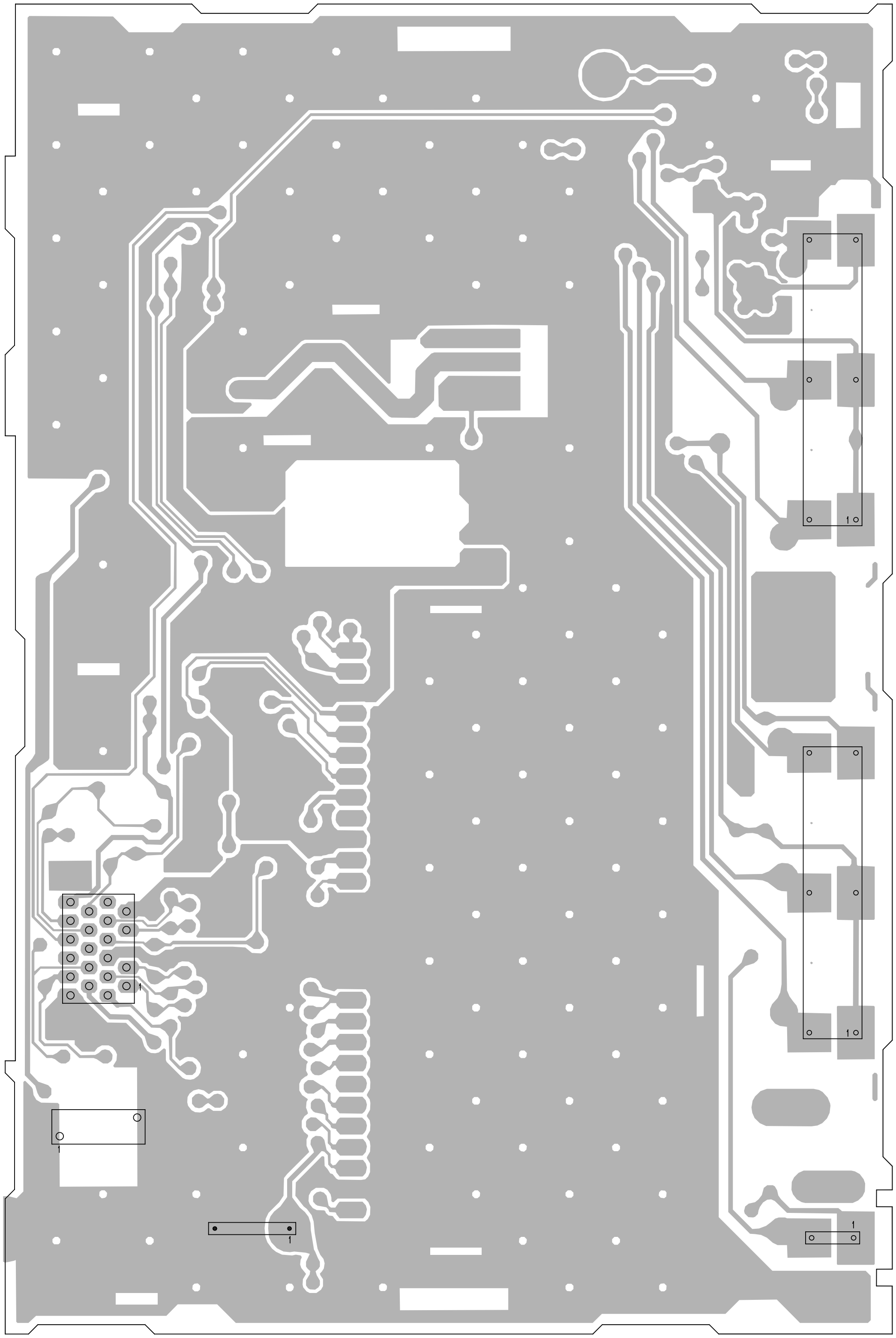
SIDE A


B CN1502
IC,Q
Q1403
Q1404
IC1402
Q1401
Q1402
CN1412
CN1401
CN1402
CN1403
CN1404
CN1405
CN1406
CN1407
IP-BUS
A CN103
FM/AM TUNER UNIT
Y1401
D1401
D1402
R1405
L1404
R1407
R1406
Q1403
C1419
FU1402
FU1401
R1418
R1419
C1415
C1414
C1427
R1415
R1416
Q1404
C1428
L1408
C1425
R1413
R1414
IC1402
R1412
C1429
C1422
C1421
C1426
Q1401
Q1402
C1404
C1403
L1407
R1401
C1408
C1410
R1417
R1404
R1402
C1409
R1403
C1416
C1417
C1418
C1407
C1406
C1405
L1406
L1401
ZNR1401
A
B
C
D
E
F

G

G TUNER UNIT

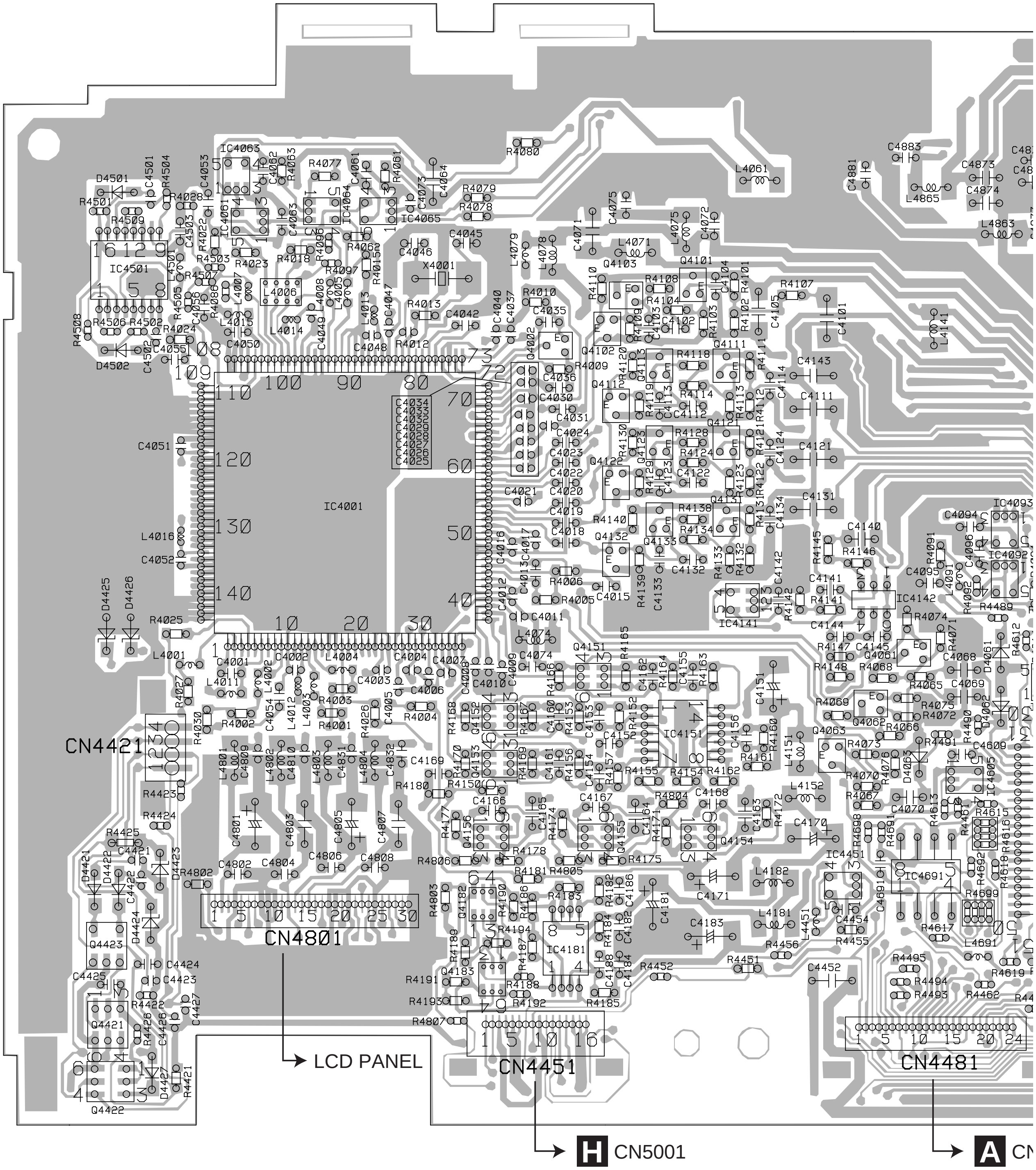
SIDE B



4.6 MONITOR PCB

I MONITOR PCB

IC,Q
IC4731
IC4732
IC4063 IC4861
IC4065
IC4061 IC4064
Q4103 Q4101
IC4501
IC4701
Q4102 Q4111
Q4002
Q4113 IC4841
Q4112
Q4121
Q4123 Q4835
Q4122
Q4131 IC4093
IC4001
Q4133 Q4741
Q4132
IC4092
IC4142
IC4602 Q4742
IC4141
Q4151 Q4061
IC4604 Q4831
Q4063 Q4062
Q4152 IC4151
IC4851
Q4602 Q4601
Q4153 IC4605
Q4154 IC4601
Q4156 Q4155
IC4691 Q4832
IC4451
IC4603
Q4182
Q4423 IC4181
Q4183
Q4603
Q4421
Q4422


IC4001
IC4501
IC4063
IC4065
IC4151
IC4141
IC4142
IC4181
IC4691
X4001
CN4421
CN4801
1 5 10 15 20 25 30
LCD PANEL
CN4451
1 5 10 16
H CN5001
CN4481
1 5 10 15 20 24
A CN

FRONT

A

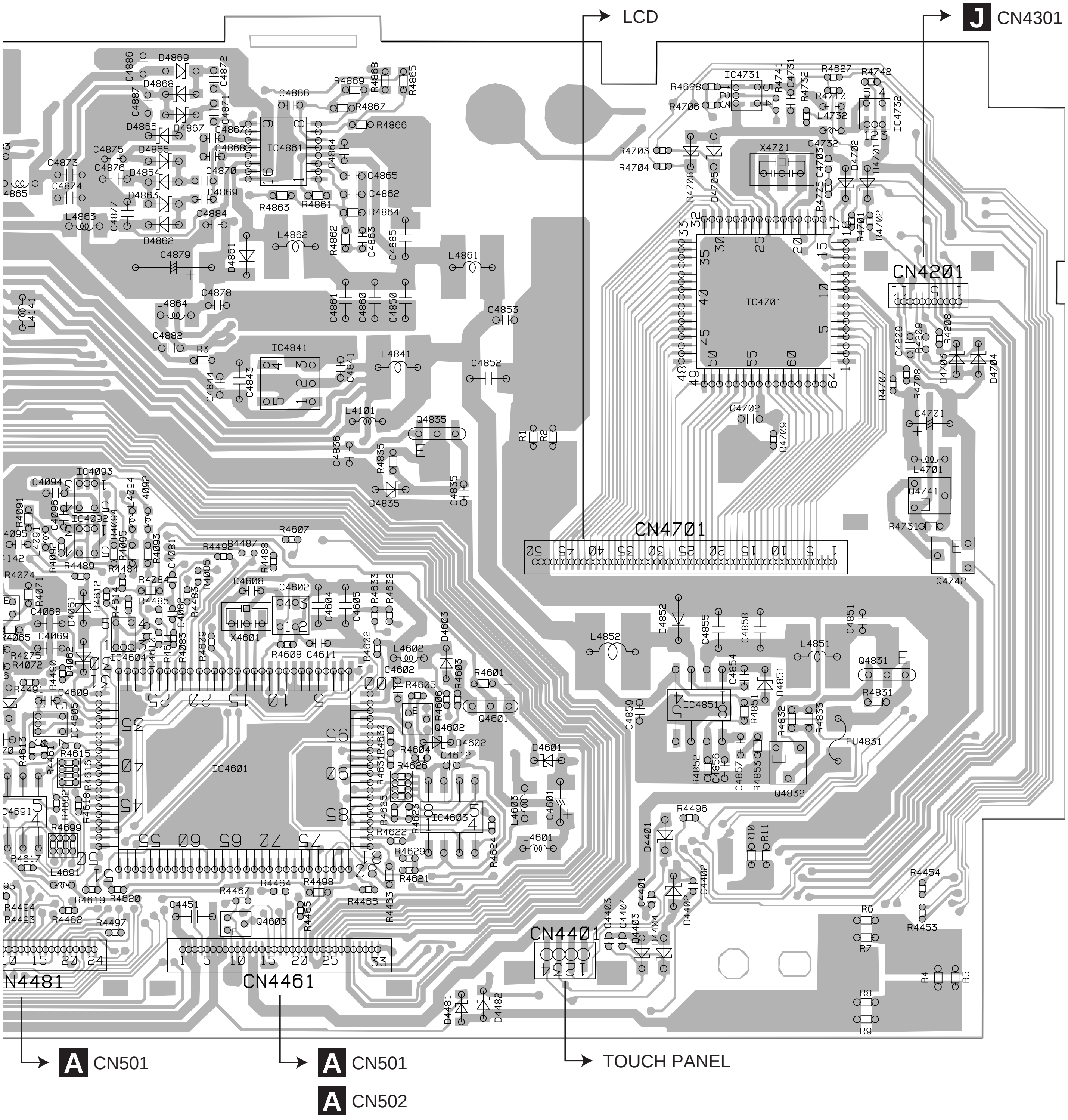
SIDE A

B

C

D

E


LCD
J CN4301
IC4731
IC4861
IC4841
X4701
IC4701
CN4201
C4701
L4701
Q4741
Q4742
CN4701
IC4093
IC4092
IC4602
X4601
IC4604
IC4605
IC4601
Q4602
Q4601
D4602
D4601
IC4603
L4603
L4601
L4852
L4851
D4851
IC4851
Q4831
Q4832
FU4831
D4401
CN4401
Q4603
N4481
CN4461
D4481
D4482
A CN501
A CN501
A CN502
TOUCH PANEL

F

FRONT

I

A

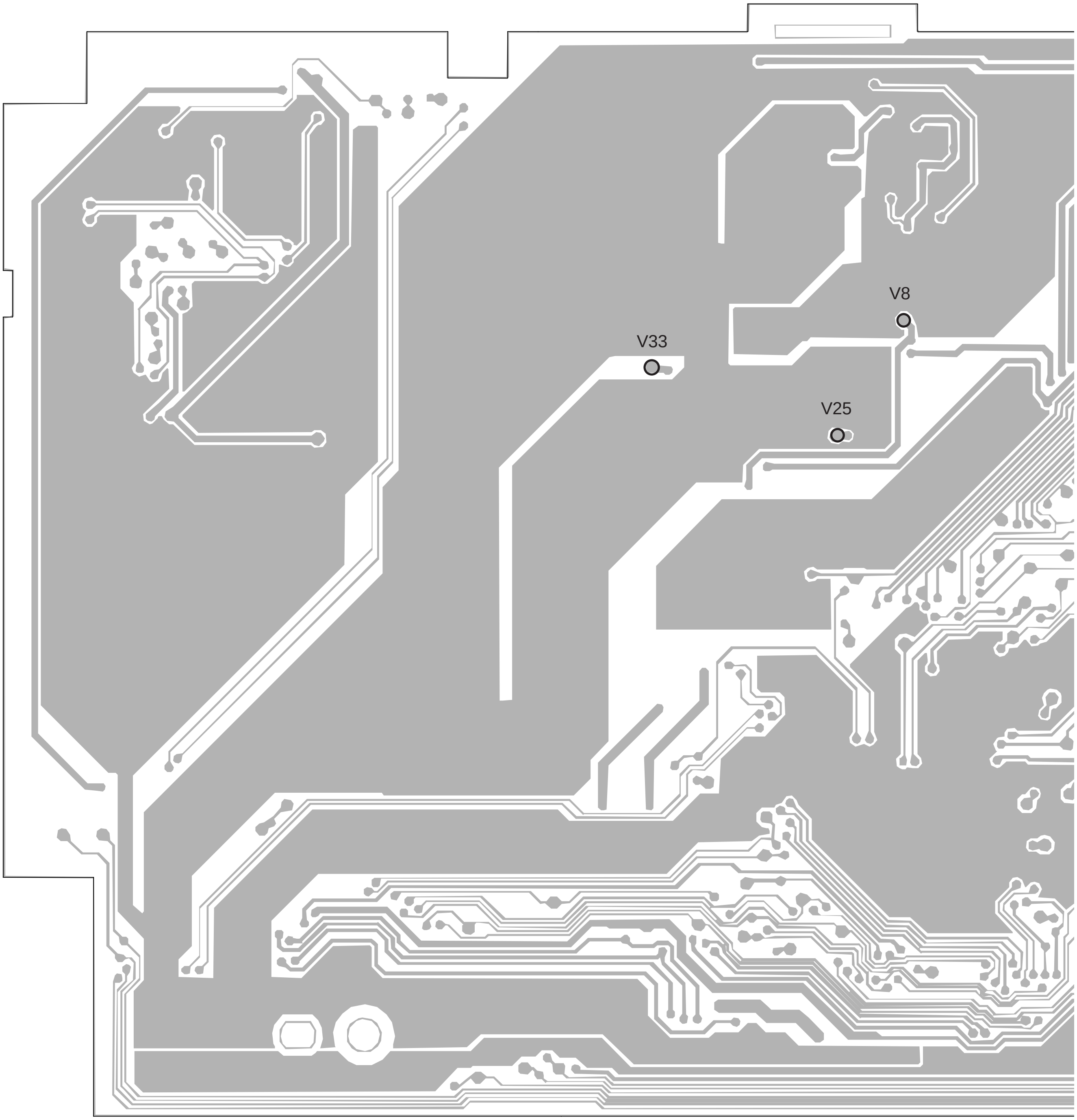
MONITOR PCB

B

C

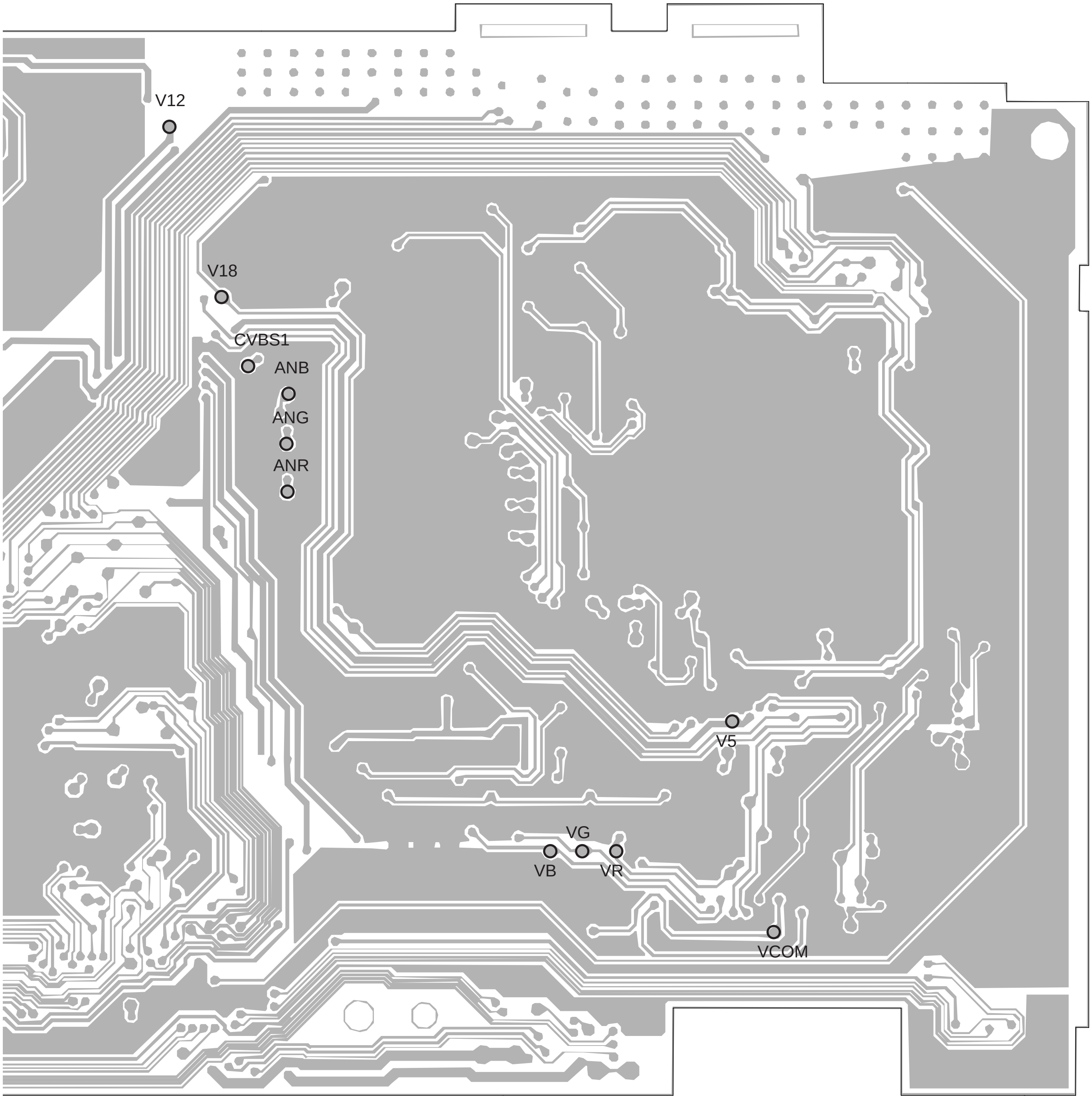
D

E



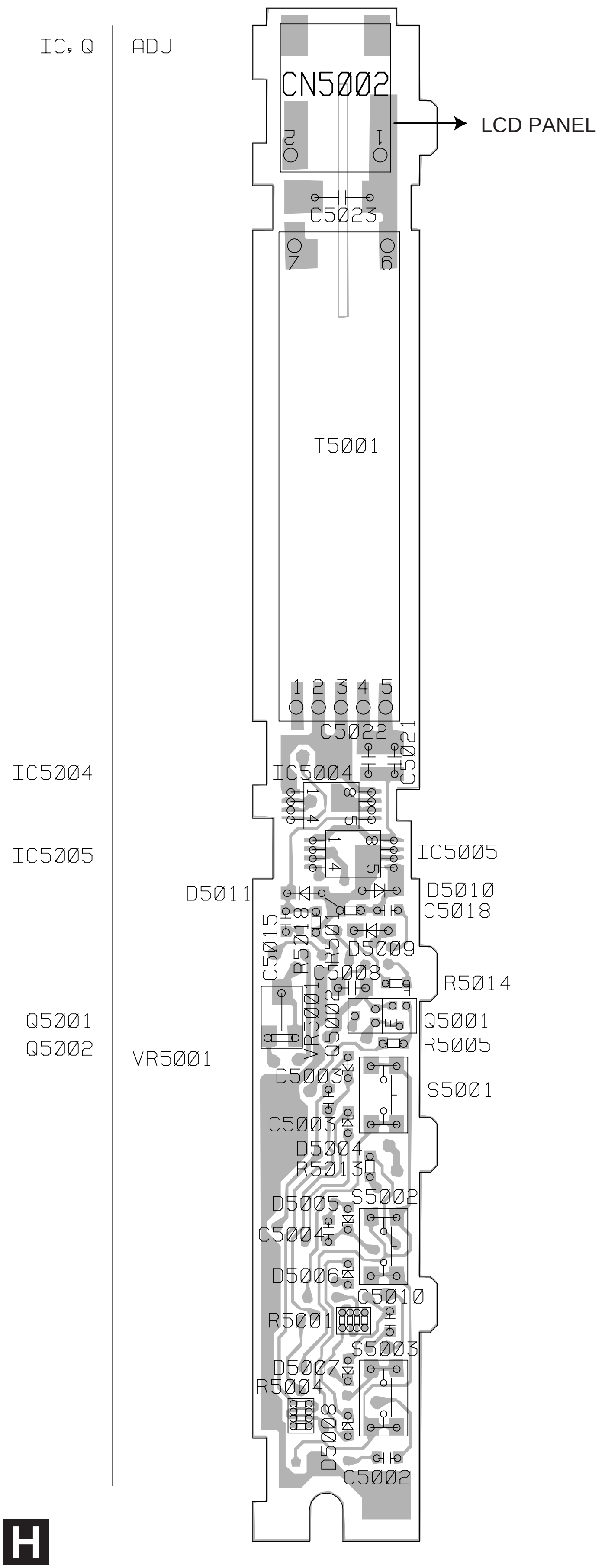
F

SIDE B

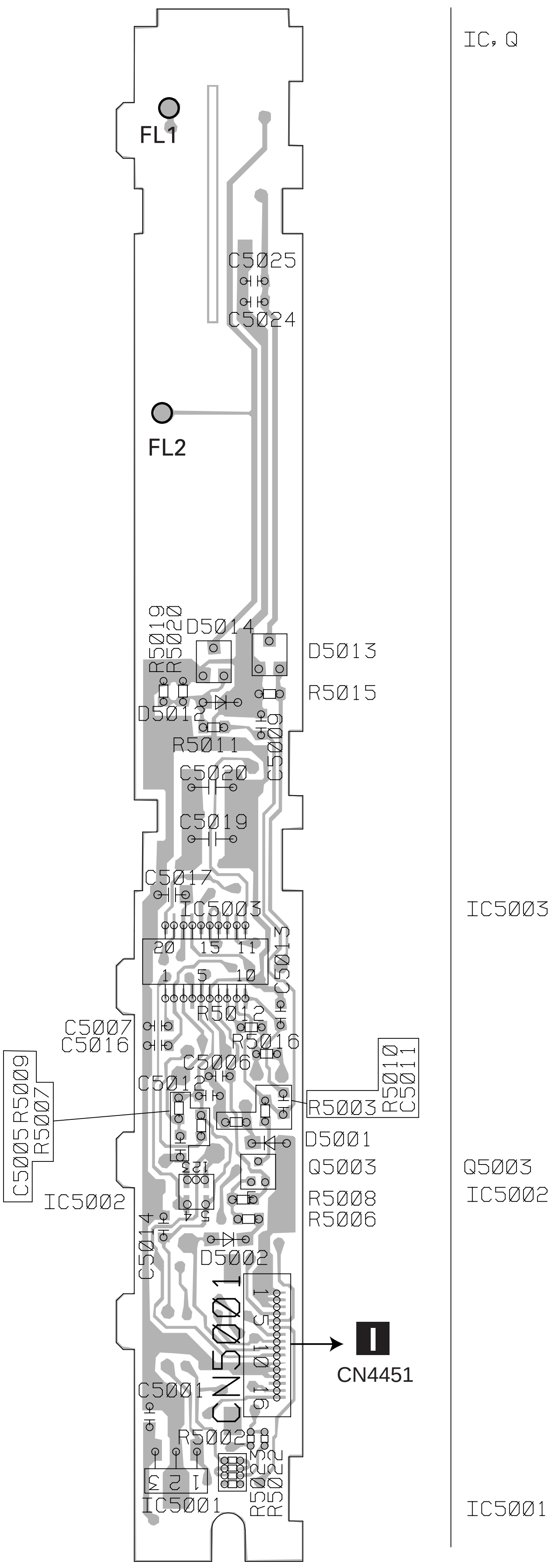

V12
V18
CVBS1
ANB
ANG
ANR
V5
VG
VB
VR
VCOM

4.7 INVERTER PCB

H INVERTER PCB **SIDE A**

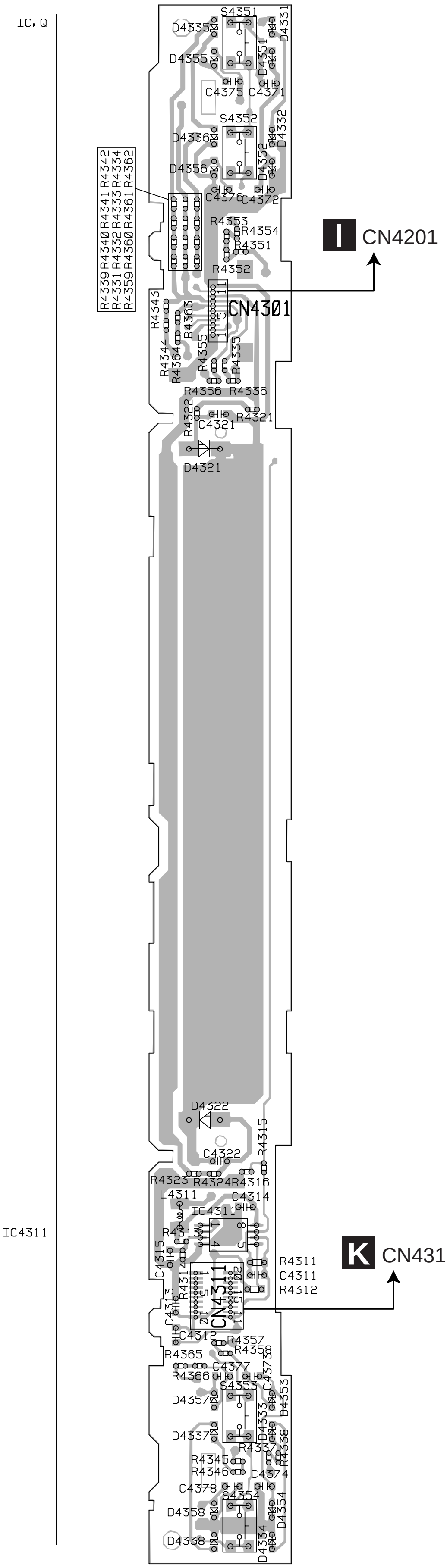

IC, Q
ADJ
CN5002
LCD PANEL
C5023
T5001
1 2 3 4 5
C5022
C5021
IC5004
IC5005
D5011
D5010
C5018
C5015
R5018
R5017
D5009
C5008
R5014
VR5001
Q5002
Q5001
R5005
Q5001
Q5002
VR5001
D5003
S5001
C5003
D5004
R5013
D5005
S5002
C5004
D5006
C5010
R5001
S5003
D5007
R5004
D5008
C5002

H INVERTER PCB **SIDE B**

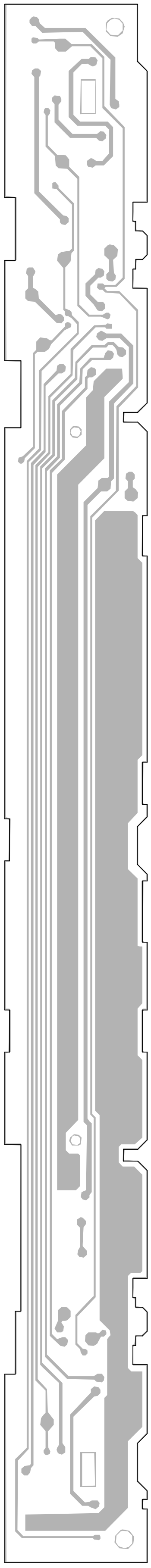

IC, Q
FL1
FL2
C5025
C5024
R5019
R5020
D5014
D5013
R5015
D5012
R5011
C5009
C5020
C5019
C5017
IC5003
C5013
IC5003
C5007
C5016
R5012
R5016
C5006
C5012
C5005
R5009
R5007
R5003
R5010
C5011
D5001
Q5003
IC5002
R5008
R5006
Q5003
IC5002
C5014
D5002
CN5001
I
CN4451
C5001
R5002
R5023
R5022
IC5001
IC5001

4.8 UPPER PCB

J UPPER PCB **SIDE A**


IC,Q
S4351
D4335
D4331
D4355
D4351
C4375 C4371
S4352
D4336
D4332
D4356
D4352
C4376
C4372
R4339 R4340 R4341 R4342
R4331 R4332 R4333 R4334
R4359 R4360 R4361 R4362
R4353
R4354
R4351
R4352
I CN4201
CN4301
11
5
1
R4343
R4363
R4344
R4364
R4355
R4335
R4356 R4336
R4322
C4321
R4321
D4321
D4322
C4322
R4315
R4323 R4324 R4316
L4311
C4314
IC4311
1 8
4 5
R4313
C4315
R4314
K CN4312
R4311
C4311
R4312
CN4311
1 20
5 15
10 11
C4313
C4312
R4357
R4358
R4365
C4377
C4373
R4366
S4353
D4357
D4353
D4333
D4337
R4337
R4338
R4345
R4346
C4374
C4378
S4354
D4358
D4354
D4338
D4334
IC4311

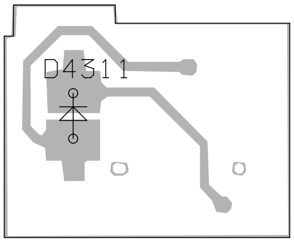
J UPPER PCB **SIDE B**



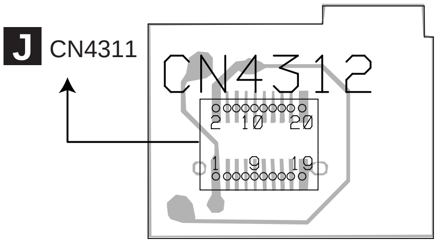
J

4.9 SENSE PCB

K SENSE PCB **SIDE A**



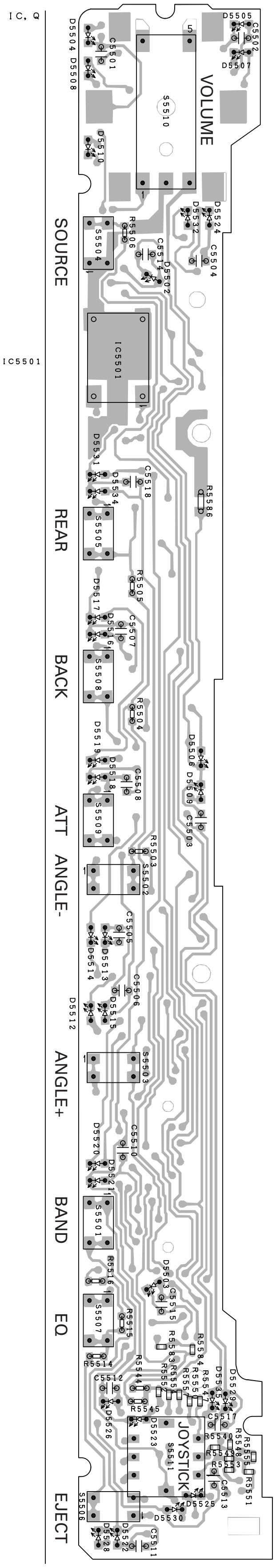
K SENSE PCB **SIDE B**


J CN4311
CN4312
2
10
20
1
9
19

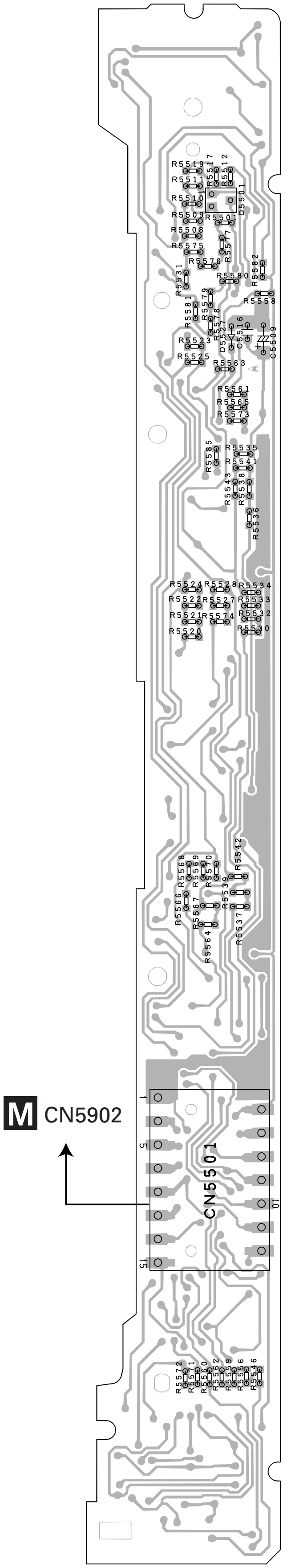
K

4.10 GRILLE PCB

L GRILLE PCB **SIDE A**


IC, Q
IC5501
VOLUME
S5510
SOURCE
S5504
REAR
S5505
BACK
S5508
ATT
S5509
ANGLE-
S5502
ANGLE+
S5503
BAND
S5501
EQ
S5507
JOYSTICK
S5511
EJECT
S5506
D5505
C5502
D5507
D5504
D5508
C5501
D5510
D5524
D5532
C5504
R5506
C5514
D5502
D5531
C5518
D5534
R5586
R5505
D5517
D5516
C5507
R5504
D5519
D5518
C5508
D5506
D5509
C5503
R5503
C5505
D5513
D5514
C5506
D5512
D5515
D5520
C5510
D5521
R5516
D5503
C5515
R5515
R5514
C5512
D5526
R5545
D5523
C5517
D5525
D5530
D5528
D5527
C5511
R5551

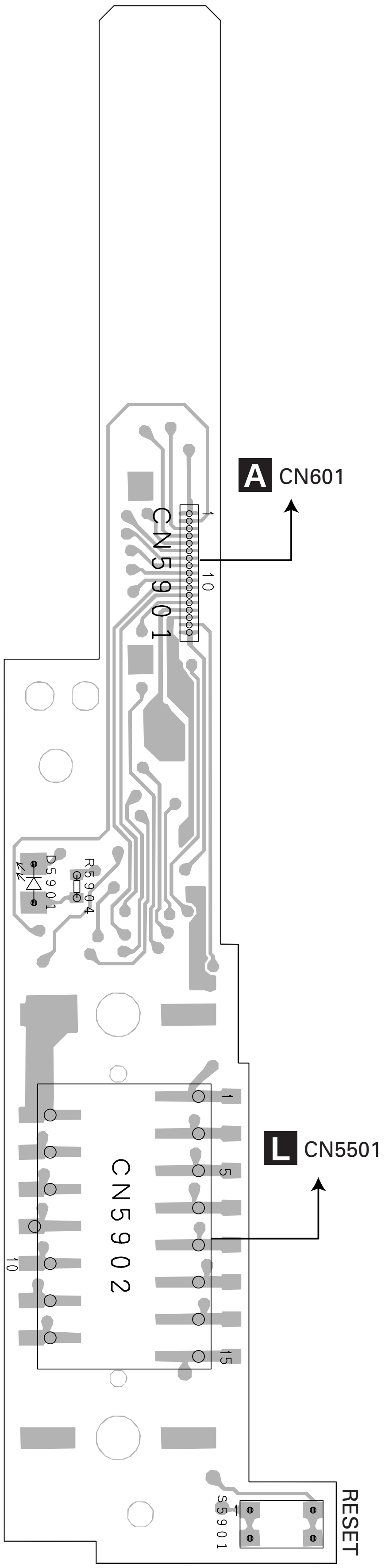
L GRILLE PCB **SIDE B**


R5519
R5517
R5512
R5511
D5501
R5510
R5509
R5501
R5508
R5575
R5577
R5576
R5531
R5580
R5582
R5558
R5581
R5579
R5578
R5523
C5516
C5509
R5525
R5563
R5561
R5565
R5573
R5585
R5535
R5541
R5543
R5538
R5536
R5524
R5528
R5534
R5522
R5527
R5533
R5521
R5574
R5532
R5520
R5530
R5542
R5568
R5569
R5570
R5566
R5567
R5539
R5537
R5564
M
CN5902
CN5501
1
5
10
15
R5572

4.11 KEYBOARD PCB

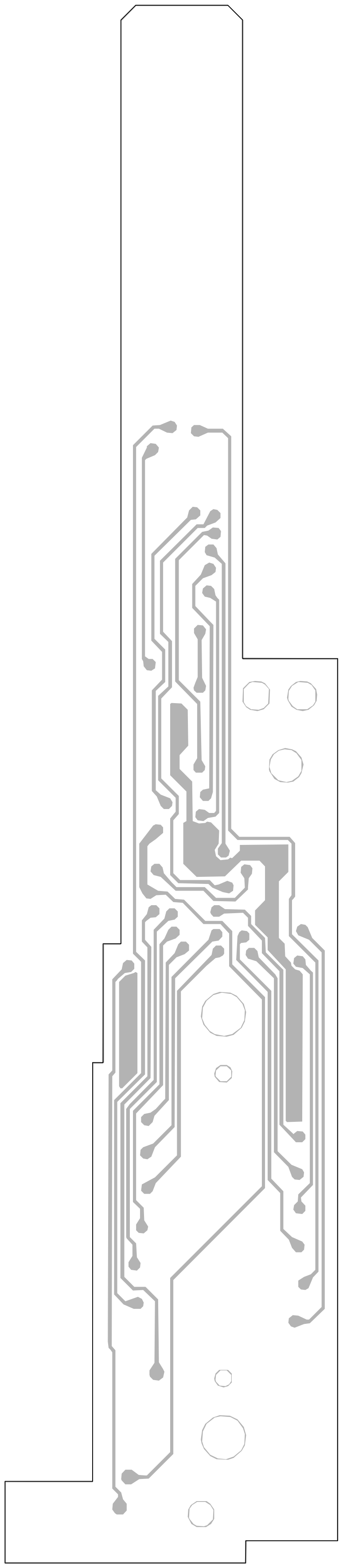
M PANEL PCB

SIDE A


A CN601
CN5901
1
10
D5901
R5904
L CN5501
CN5902
1
5
10
15
S5901
RESET

M PANEL PCB

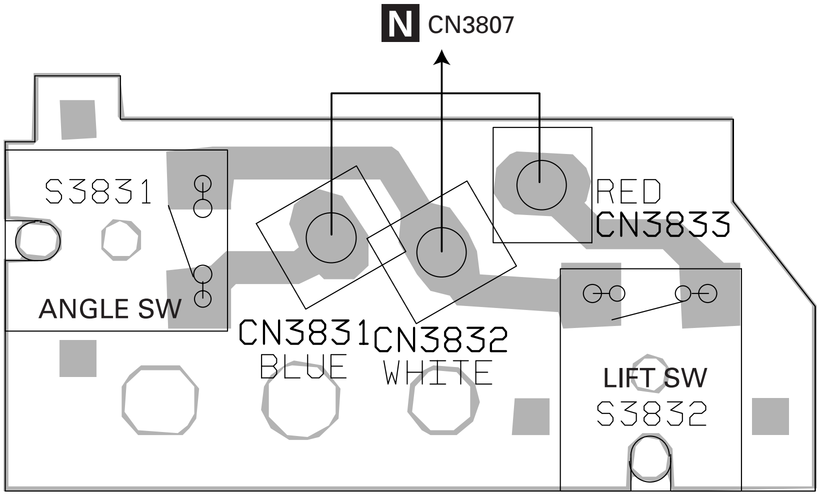
SIDE B



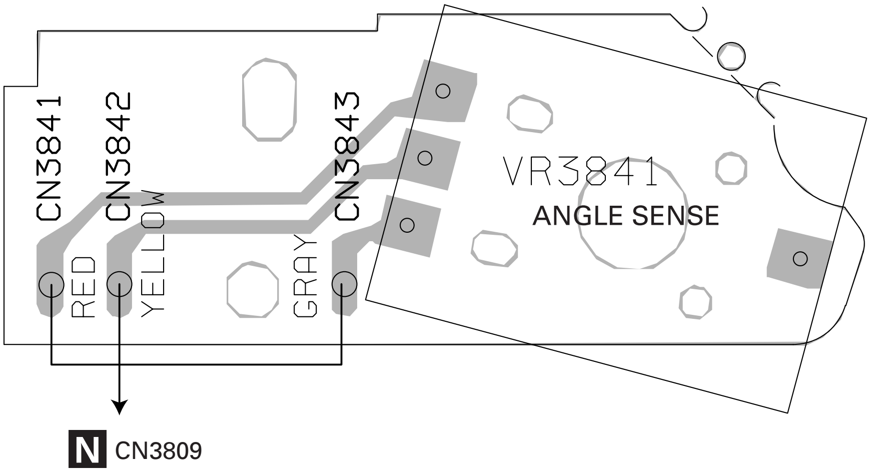
M

4.12 SW UNIT AND VOLUME UNIT

O SW UNIT


N CN3807
S3831
ANGLE SW
CN3831
BLUE
CN3832
WHITE
RED
CN3833
LIFT SW
S3832

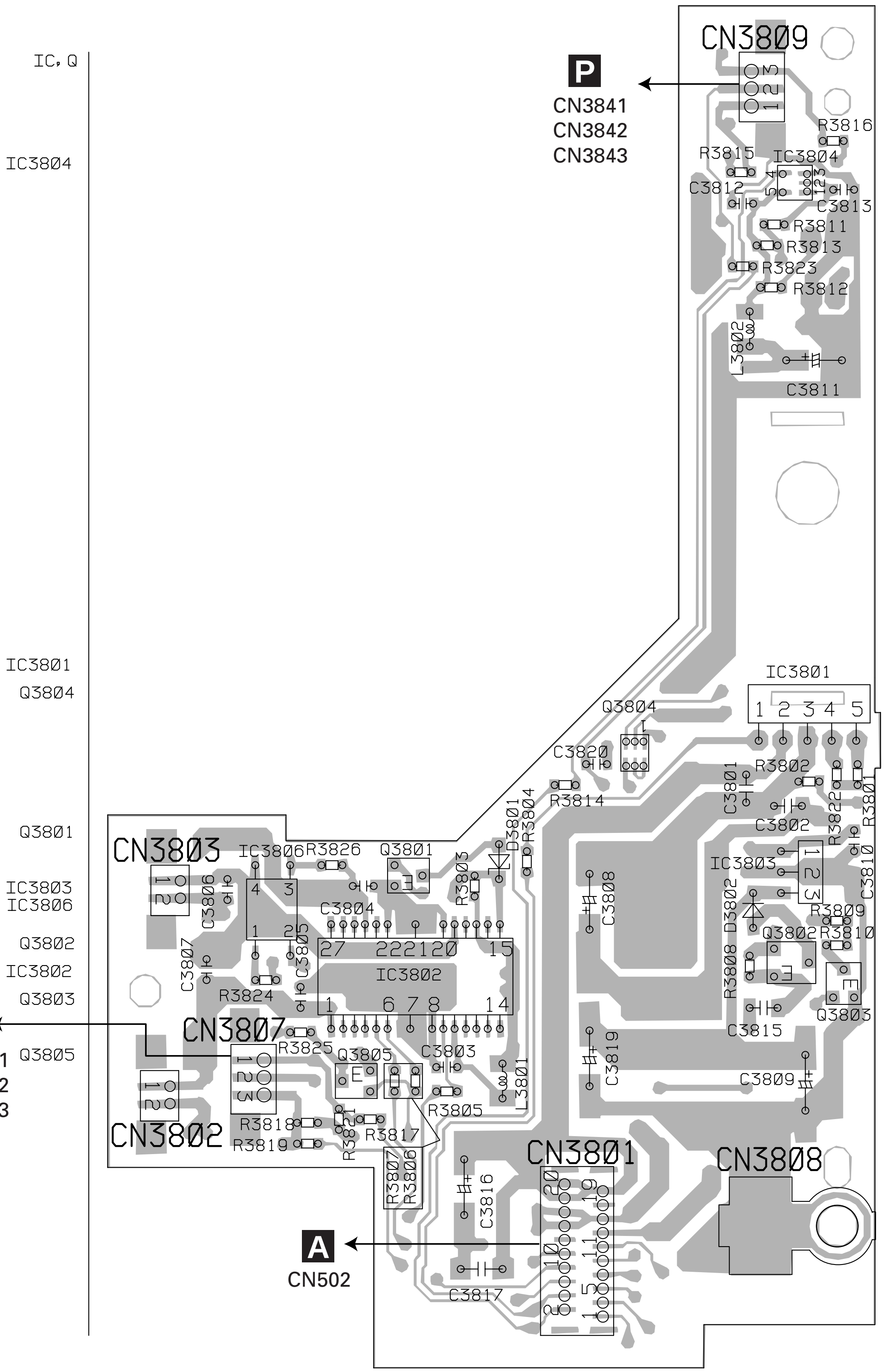
P VOLUME UNIT


CN3841
CN3842
CN3843
RED
YELLOW
GRAY
VR3841
ANGLE SENSE
N CN3809

4.13 MAIN UNIT

N MAIN UNIT

SIDE A


IC, Q
IC3804
IC3801
Q3804
Q3801
IC3803
IC3806
Q3802
IC3802
Q3803
Q3805
CN3809
P
CN3841
CN3842
CN3843
R3816
R3815
IC3804
C3812
C3813
R3811
R3813
R3823
R3812
L3802
C3811
IC3801
Q3804
C3820
R3802
R3814
C3801
C3802
R3822
R3801
D3801
R3804
CN3803
IC3806
R3826
Q3801
R3803
IC3803
C3810
C3806
C3804
C3808
R3809
D3802
Q3802
R3810
C3805
IC3802
C3807
R3808
R3824
C3815
Q3803
O
CN3831
CN3832
CN3833
CN3807
R3825
Q3805
C3803
C3819
C3809
L3801
R3805
R3818
R3821
R3817
CN3802
R3819
R3807
R3806
CN3801
CN3808
C3816
A
CN502
C3817

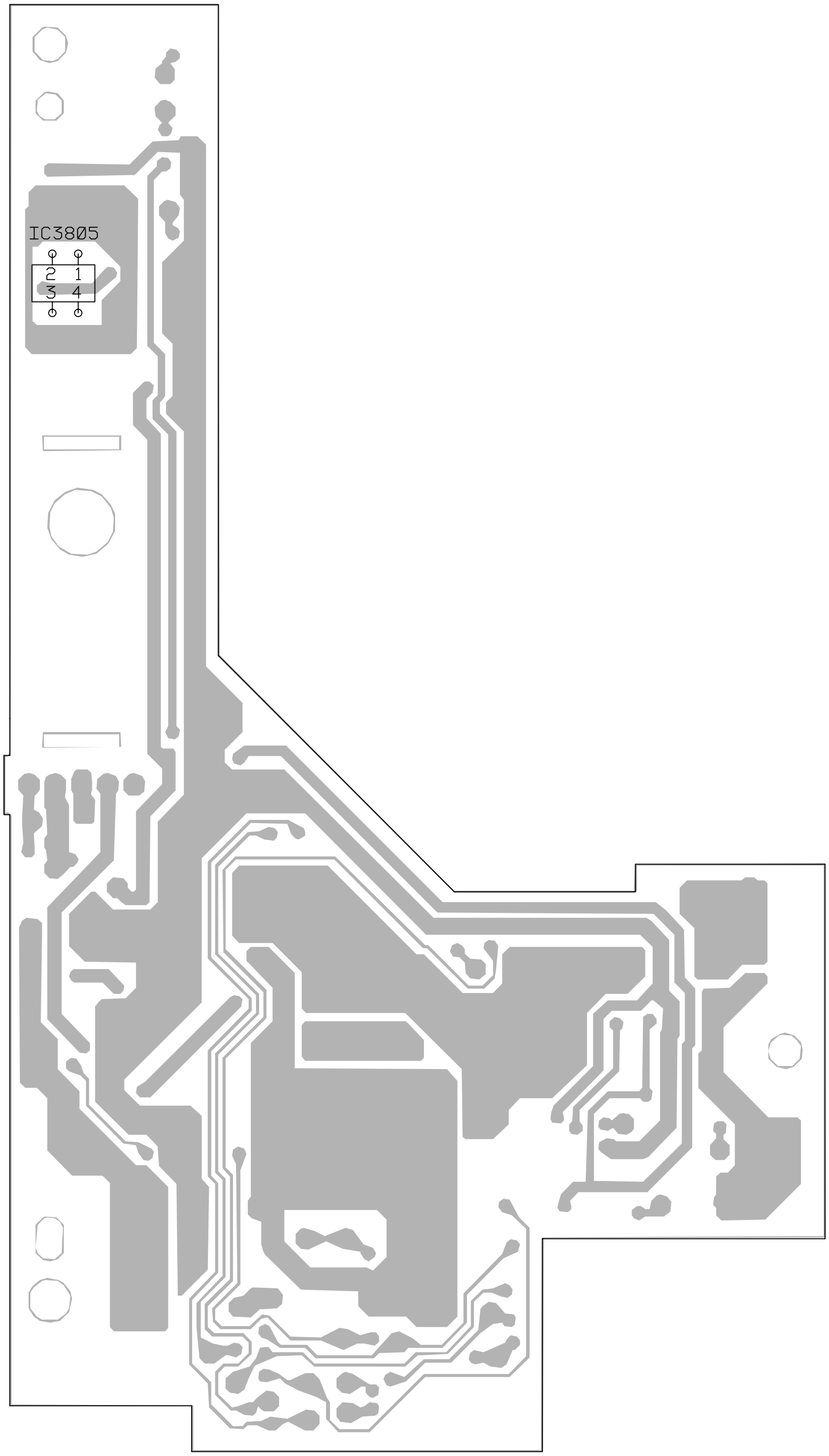
N

N MAIN UNIT

SIDE B

IC, Q

IC3805


IC3805
2 1
3 4

5. ELECTRICAL PARTS LIST

NOTE:

- *Parts whose parts numbers are omitted are subject to being not supplied.*
- *The part numbers shown below indicate chip components.*

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

Mother Unit
Consists of
Mother PCB
Relay PCB

A B

Unit Number:CWM9143(UC model)
Unit Number:CWM9142(EW model)
Unit Name:Mother Unit

MISCELLANEOUS

Circuit Symbol and No.		Part No.
IC 101	IC	TC4S81F
IC 102	IC	HA12240FP
IC 103	IC	TC7SET08FU
IC 151	IC	SM5304AV
IC 152	IC	TC74VHC08FT
IC 153	IC	TC7SET08FU
IC 201	IC	PML009A
IC 202	IC	PAL007A
IC 203	IC	PA2028A
IC 301	IC	NJM4558V
IC 351	IC	NJM4558V
IC 352	IC	NJM4558V
IC 353	IC	NJM4580V
IC 401	IC	TA2050F
IC 402	IC	TA2050F
IC 403	IC	TA2050F
IC 404	IC	NJM2136V
IC 405	IC	NJM2136V
IC 406	IC	NJM2136V
IC 407	IC	NJM2136V
IC 408	IC	CXA2089Q
IC 409	IC	BA7623F
IC 410	IC	NJM2136V
IC 411	IC	NJM2138V
IC 601	IC(UC model)	PE5416A
IC 601	IC(EW model)	PE5415A
IC 602	IC	PDH089A
IC 603	IC	S-80841CNUA-B82
IC 801	IC	S-812C33AUA-C2N
IC 802	IC	LTC3728EG
IC 803	IC	LTC3728EG
IC 804	IC	BA00BC0WFP
IC 805	IC	S-812C50AUA-C3E
IC 806	IC	S-814A33AMC-BCX

Circuit Symbol and No.		Part No.
IC 1401	IC	PE5417A
IC 1403	IC	TC7WHU04FU
IC 1404	IC	S-80827CNUA-B8M
IC 1405	IC	TC7SET08FU
IC 1407	IC	TC74VCX02FT
IC 1408	IC	BA3834F
IC 1410	IC	PD8125A
IC 1411	IC	PD8126A
IC 1414	IC	TC7SZ04FU
IC 1451	IC	HD64413ASFI
IC 1452	IC	K4S641632H-TC75
Q 101	Transistor	2SC4081
Q 102	Transistor	2SC4081
Q 103	Transistor	UMF23N
Q 151	Transistor	IMD2A
Q 152	Transistor	IMX9
Q 201	Transistor	2SC4081
Q 202	Transistor	IMD2A
Q 203	Transistor	DTC124EU
Q 204	Transistor	DTC144EU
Q 205	Transistor	2SC4081
Q 206	Transistor	IMX9
Q 207	Transistor	IMX9
Q 208	Transistor	IMX9
Q 209	Transistor	IMD2A
Q 301	Transistor	IMX9
Q 302	Transistor	IMD2A
Q 303	Transistor	2SC4081
Q 351	Transistor	IMD2A
Q 352	Transistor	DTC323TU
Q 353	Transistor	DTC124EU
Q 401	Transistor	2SC4081
Q 402	Transistor	2SC4081
Q 403	Transistor	2SC4081
Q 404	Transistor	2SC4081
Q 405	Transistor	2SC4081
Q 406	Transistor	2SC4081
Q 551	Transistor	2SC4081
Q 552	Transistor	2SA1577
Q 601	Transistor	UMF23N
Q 602	Transistor	DTC114EU
Q 603	Transistor	DTA114EU
Q 604	Transistor	DTC144EU
Q 605	Transistor	2SC4081
Q 606	Transistor	2SC4081
Q 607	Transistor	2SC4081
Q 608	Transistor	2SC4081
Q 609	Transistor	2SA1577

Circuit Symbol and No.		Part No.
Q 610	Transistor	DTC144EU
Q 611	Transistor	2SA1577
Q 612	Transistor	DTC144EU
Q 613	Transistor	2SA1577
Q 614	Transistor	DTC144EU
Q 615	Transistor(EW model)	2SA1577
Q 616	Transistor(EW model)	DTC144EU
Q 617	Transistor	DTC124EU
Q 701	Transistor	IMX1
Q 702	Transistor	DTC114EU
Q 703	Transistor	2SA1576
Q 704	Transistor	2SA1576
Q 705	Transistor	2SC4081
Q 801	Transistor	DTC124EU
Q 802	Transistor	DTC124EU
Q 803	Transistor	2SB1708
Q 805	Transistor	2SB1708
Q 806	Transistor	2SC4081
Q 807	Transistor	2SB1708
Q 808	Transistor	DTC124EU
Q 809	Transistor	DTC124EU
Q 810	Transistor	DTC124EU
Q 811	Transistor	DTC124EU
Q 812	Transistor	UMF5N
Q 813	Transistor	DTC124EU
Q 814	Transistor	DTC124EU
Q 815	Transistor	2SB1184F5
Q 816	Transistor	2SD1767
Q 817	Transistor	IMD2A
Q 818	Transistor	2SD1767
Q 819	Transistor	DTC114EU
Q 821	FET	SP8K4
Q 822	FET	SP8K4
Q 823	FET	SP8K4
Q 824	Transistor	DTC124EU
Q 825	Transistor	2SA1797
Q 827	Transistor	DTC144EU
Q 828	Transistor	2SD1767
Q 829	Transistor	DTC124EU
Q 830	Transistor	2SB1708
Q 831	Transistor	DTC124EU
Q 832	Transistor	2SB1708
Q 833	Transistor	2SD1760F5
Q 834	Transistor	UMF5N
Q 835	Transistor	UMF5N
Q 836	Transistor	2SD2375
Q 837	Transistor	UMF5N
Q 838	Transistor	2SB1184F5
Q 839	Transistor	IMD2A
Q 840	Transistor	UMF5N
Q 841	Transistor	2SD1767
Q 842	Transistor	UMF5N
Q 843	Transistor	UMF5N
Q 844	Transistor	2SD1767
Q 845	Transistor	UMF5N
Q 901	Transistor	DTC114EU
Q 902	Transistor	2SA1615-Z
Q 1401	Transistor	FMG12
Q 1402	Transistor	UMF5N
Q 1403	Transistor	UMF5N

Circuit Symbol and No.		Part No.
Q 1405	Transistor	2SA1774
Q 1406	Transistor	2SA1774
Q 1407	Transistor	2SA1774
D 101	Diode	HZU2R7(B1)
D 102	Diode	HZU2R7(B1)
D 103	Diode	HZU2R7(B1)
D 104	Diode	HZU2R7(B1)
D 105	Diode	UDZS5R6(B)
D 106	Diode	UDZS5R6(B)
D 107	Diode	UDZS5R6(B)
D 108	Diode	UDZS5R6(B)
D 109	Diode	HZU2R7(B1)
D 110	Diode	HZU2R7(B1)
D 111	Diode	HZU2R7(B1)
D 112	Diode	HZU2R7(B1)
D 113	Diode Network	DA204U
D 114	Diode Network	DA204U
D 115	Diode	HZU2R7(B1)
D 116	Diode	HZU2R7(B1)
D 117	Diode	UDZS5R6(B)
D 118	Diode	UDZS5R6(B)
D 119	Diode	UDZS5R6(B)
D 120	Diode	UDZS8R2(B)
D 121	Diode	UDZS8R2(B)
D 201	Diode	DAN202U
D 202	Diode	DAN202U
D 203	Diode	DAN202U
D 204	Diode	UDZS8R2(B)
D 205	Diode	DAN202U
D 206	Diode	1SS355
D 301	Diode	RSX201L-30
D 601	Diode	UDZS5R6(B)
D 602	Diode Network	DA204U
D 603	Diode Network	DA204U
D 604	Diode Network	DA204U
D 605	Diode Network	DA204U
D 606	Diode Network	DA204U
D 607	Diode Network	DA204U
D 608	Diode Network	DA204U
D 609	Diode	1SS355
D 610	Diode	1SS355
D 611	Diode	DAN202U
D 612	Diode	1SS355
D 701	Diode	1SS355
D 702	Diode	HZU6R8(B2)
D 703	Diode	UDZS7R5(B)
D 704	Diode	DAN202U
D 705	Diode	DAN202U
D 706	Diode	S1G-6904G2P
D 707	Diode	S1G-6904G2P
D 708	Diode	5KP24A
D 801	Diode	S1G-6904G2P
D 802	Diode	UDZS18(B)
D 803	Diode	RSX201L-30
D 804	Diode	HZU8R2(B1)
D 805	Diode	DAN202U
D 806	Diode	HZU5R6(B2)
D 807	Diode	RB500V-40
D 808	Diode	RB500V-40
D 809	Diode	RB500V-40

Circuit Symbol and No.		Part No.
D 811	Diode	RB160L-40
D 812	Diode	RB160L-40
D 813	Diode	RB160L-40
D 814	Diode	S1G-6904G2P
D 815	Diode	S2G-6600
D 816	Diode	RSX201L-30
D 817	Diode	S2G-6600
D 819	Diode	UDZS5R6(B)
D 820	Diode	S2G-6600
D 821	Diode	DAN202U
D 822	Diode	HZU6R8(B3)
D 823	Diode	HZU10(B1)
D 825	Diode	UDZS20(B)
D 826	Diode	HZU6R8(B3)
D 827	Diode	DAN202U
D 828	Diode	1SS355
D 829	Diode	1SS355
D 830	Diode	1SS355
D 831	Diode	RSX201L-30
D 1401	Diode	1SS355
D 1402	Diode	1SS355
L 101	Inductor	CTF1379
L 102	Inductor	LCTC2R2K1608
L 103	Inductor	CTF1379
L 104	Inductor	CTF1558
L 105	Inductor	CTF1558
L 110	Inductor	CTF1389
L 151	Coil	CTH1295
L 152	Inductor	CTF1399
L 153	Inductor	CTF1399
L 154	Inductor	CTF1305
L 155	Inductor	CTF1305
L 157	Inductor	CTF1473
L 158	Inductor	CTF1473
L 201	Inductor	LCTA2R2J2520
L 202	Inductor	LCTA101J2520
L 301	Inductor	CTF1379
L 302	Inductor	CTF1379
L 303	Inductor	CTF1399
L 351	Inductor	CTF1399
L 352	Inductor	CTF1399
L 353	Inductor	CTF1399
L 401	Inductor	CTF1383
L 403	Inductor	CTF1399
L 404	Inductor	LCTA150J2520
L 405	Inductor	CTF1399
L 406	Inductor	CTF1399
L 407	Inductor	CTF1399
L 408	Inductor	LCTA100J2520
L 409	Inductor	CTF1383
L 410	Inductor	CTF1399
L 411	Inductor	CTF1399
L 412	Inductor	CTF1399
L 413	Inductor	CTF1399
L 415	Inductor	CTF1399
L 551	Inductor	CTF1399
L 601	Inductor	CTF1399
L 602	Inductor	CTF1306
L 603	Inductor	CTF1306
L 604	Inductor	LCTA2R2J2520

Circuit Symbol and No.		Part No.
L 701	Inductor	LCTC2R2K1608
L 702	Inductor	LCTC2R2K1608
L 801	Coil	CTH1308
L 802	Coil	CTH1308
L 803	Coil	CTH1308
L 805	Coil	CTH1308
L 806	Inductor	LCTA1R0J3225
L 807	Coil	CTH1308
L 809	Inductor	CTF1383
L 901	Coil	CTH1267
L 902	Choke Coil 270µH	CTH1263
L 1401	Inductor	CTF1379
L 1402	Inductor	CTF1399
L 1403	Inductor	CTF1399
L 1404	Inductor	CTF1379
L 1406	Inductor	CTF1399
L 1407	Inductor	CTF1379
L 1408	Inductor	CTF1379
L 1409	Inductor	CTF1379
L 1410	Inductor	CTF1399
L 1411	Inductor	CTF1396
L 1414	Inductor	CTF1379
L 1415	Inductor	LCTC2R2K1608
L 1416	Inductor	LCTC2R2K1608
L 1417	Inductor	LCTC2R2K1608
L 1418	Inductor	CTF1379
L 1419	Inductor	CTF1379
L 1420	Inductor	CTF1379
L 1421	Inductor	CTF1379
L 1422	Inductor	CTF1379
L 1423	Inductor	CTF1379
L 1424	Inductor	CTF1379
L 1425	Inductor	CTF1379
L 1426	Inductor	CTF1379
L 1427	Inductor	CTF1379
L 1428	Inductor	CTF1389
L 1429	Inductor	CTF1389
L 1430	Inductor	CTF1389
X 601	Resonator 18.874368MHz	CSS1622
X 1401	Ceramic Resonator 4.97MHz	CSS1575
X 1452	Resonator 33.0MHz	CSS1656
VR401	Semi-fixed 1.5kΩ(OB)	CCP1391
FU101	Fuse 5A	CEK1289
FU102	Fuse 1A	CEK1280
FU103	Fuse 1A	CEK1280
FU104	Fuse 5A	CEK1289
FU107	Fuse 5A	CEK1289
FU151	Fuse 2.5A	CEK1285
FU152	Fuse 1A	CEK1280
FU153	Fuse 2A	CEK1284
FU154	Fuse 250mA	CEK1276
FU155	Fuse 250mA	CEK1276
FU201	Fuse 3A	CEK1286
FU501	Fuse 250mA	CEK1276
FU502	Fuse 1.75A	CEK1283
FU701	Fuse 5A	CEK1289
FU802	Fuse 1.25A	CEK1281
FU804	Fuse 1A	CEK1280
FU805	Fuse 1A	CEK1280
FU901	Fuse 1.25A	CEK1281

Circuit Symbol and No.		Part No.
FU902	Fuse 1.75A	CEK1283
EF801	EMI Filter	CCG1142
BZ601	Buzzer	CPV1063

RESISTORS

Circuit Symbol and No.	Part No.
R 101	RS1/16S750J
R 103	RS1/16S681J
R 104	RS1/16S681J
R 105	RS1/16S0R0J
R 106	RS1/16S750J
R 107	RS1/16S473J
R 108	RS1/16S681J
R 109	RS1/16S750J
R 110	RS1/16S473J
R 111	RS1/16S473J
R 112	RS1/16S681J
R 113	RS1/16S750J
R 114	RS1/16S473J
R 115	RS1/16S473J
R 116	RS1/16S473J
R 117	RS1/16S473J
R 118	RS1/16S472J
R 119	RS1/16S102J
R 120	RS1/16S101J
R 121	RS1/16S150J
R 122	RS1/16S470J
R 123	RS1/16S101J
R 124	RS1/16S222J
R 125	RS1/16S332J
R 126	RS1/16S562J
R 127	RS1/16S221J
R 128	RS1/16S621J
R 129	RS1/16S473J
R 130	RS1/16S121J
R 131	RS1/16S0R0J
R 132	RS1/16S101J
R 133	RS1/16S102J
R 134	RS1/16S102J
R 151	RAB4C102J
R 153	RAB4C102J
R 157	RS1/16S0R0J
R 158	RS1/16S0R0J
R 159	RS1/16S472J
R 162	RS1/16S101J
R 163	RS1/16S102J
R 164	RS1/16S103J
R 165	RS1/16S103J
R 201	RS1/16S181J
R 202	RS1/16S181J
R 203	RS1/16S0R0J
R 204	RS1/16S0R0J
R 205	RS1/16S223J
R 206	RS1/16S223J
R 207	RS1/16S102J
R 208	RS1/16S102J
R 209	RS1/16S0R0J
R 210	RS1/16S0R0J
R 211	RS1/16S0R0J
R 212	RS1/16S0R0J
R 213	RS1/16S0R0J
R 214	RS1/16S0R0J
R 215	RS1/16S0R0J
R 216	RS1/16S0R0J
R 217	RS1/16S224J
R 218	RS1/16S224J
R 219	RS1/16S104J
R 220	RS1/16S102J
R 221	RS1/16S103J
R 222	RS1/16S682J
R 223	RS1/16S103J
R 224	RS1/16S103J
R 225	RS1/16S103J
R 226	RS1/16S223J
R 227	RS1/16S221J
R 228	RS1/16S101J
R 229	RS1/16S103J
R 230	RS1/16S104J
R 231	RS1/16S820J
R 232	RS1/16S820J
R 233	RS1/16S820J
R 234	RS1/16S820J
R 235	RS1/16S820J
R 236	RS1/16S820J
R 237	RS1/16S473J
R 238	RS1/16S102J
R 239	RS1/16S223J
R 240	RS1/16S223J
R 241	RS1/16S223J
R 242	RS1/16S223J
R 243	RS1/16S223J
R 244	RS1/16S223J
R 245	RS1/16S471J
R 246	RS1/16S471J
R 247	RS1/16S471J
R 248	RS1/16S471J
R 249	RS1/16S471J
R 250	RS1/16S471J
R 251	RS1/16S103J
R 252	RS1/16S103J
R 253	RS1/16S103J
R 254	RS1/16S103J
R 255	RS1/16S103J
R 256	RS1/16S103J
R 257	RS1/16S473J
R 261	RS1/16S101J
R 301	RS1/16S0R0J
R 302	RS1/16S0R0J
R 303	RS1/16S223J
R 304	RS1/16S223J
R 305	RS1/16S821J
R 306	RS1/16S821J
R 307	RS1/16S222J
R 308	RS1/16S472J
R 309	RS1/16S472J
R 312	RS1/16S473J
R 313	RS1/16S473J
R 314	RS1/16S102J
R 315	RS1/16S272J
R 316	RS1/16S472J
R 317	RS1/16S222J

Circuit Symbol and No.	Part No.	Circuit Symbol and No.	Part No.
R 318	RS1/16S222J	R 435	RS1/16S152J
R 319	RS1/16S103J	R 436	RS1/16S750J
R 320	RS1/16S103J	R 437	RS1/16S101J
R 351	RS1/16S473J	R 438	RS1/16S472J
R 352	RS1/16S101J	R 439	RS1/16S472J
R 353	RS1/16S473J	R 440	RS1/16S270J
R 354	RS1/16S103J	R 441	RS1/16S472J
R 355	RS1/16S473J	R 442	RS1/16S102J
R 356	RS1/16S472J	R 443	RS1/16S272J
R 357	RS1/16S472J	R 444	RS1/16S392J
R 358	RS1/16S103J	R 445	RS1/16S472J
R 359	RS1/16S473J	R 446	RS1/16S102J
R 360	RS1/16S473J	R 447	RS1/16S0R0J
R 361	RS1/16S104J	R 448	RS1/16S562J
R 362	RS1/16S821J	R 449	RS1/16S562J
R 363	RS1/16S473J	R 450	RS1/16S562J
R 364	RS1/16S473J	R 451	RS1/16S562J
R 365	RS1/16S103J	R 452	RS1/16S272J
R 366	RS1/16S102J	R 453	RS1/16S472J
R 367	RS1/16S103J	R 454	RS1/16S0R0J
R 368	RS1/16S103J	R 455	RS1/16S472J
R 369	RS1/16S103J	R 456	RS1/16S101J
R 370	RS1/16S103J	R 457	RS1/16S472J
R 371	RS1/16S103J	R 458	RS1/16S750J
R 372	RS1/16S103J	R 459	RS1/16S472J
R 375	RS1/16S103J	R 460	RS1/16S473J
R 401	RS1/16S123J	R 461	RS1/16S333J
R 402	RS1/16S123J	R 462	RS1/16S0R0J
R 403	RS1/16S123J	R 463	RS1/16S472J
R 404	RS1/16S223J	R 464	RS1/16S101J
R 405	RS1/16S123J	R 465	RS1/16S0R0J
R 406	RS1/16S223J	R 467	RS1/16S472J
R 407	RS1/16S223J	R 468	RS1/16S102J
R 408	RS1/16S102J	R 469	RS1/16S472J
R 409	RS1/16S181J	R 470	RS1/16S472J
R 410	RS1/16S181J	R 471	RS1/16S0R0J
R 411	RS1/16S223J	R 472	RS1/16S222J
R 412	RS1/16S102J	R 473	RS1/16S222J
R 413	RS1/16S102J	R 474	RS1/16S101J
R 414	RS1/16S223J	R 475	RS1/16S101J
R 415	RS1/16S223J	R 476	RS1/16S152J
R 416	RS1/16S223J	R 477	RS1/16S152J
R 417	RS1/16S102J	R 478	RS1/16S152J
R 418	RS1/16S750J	R 479	RS1/16S101J
R 419	RS1/16S223J	R 480	RS1/16S101J
R 420	RS1/16S181J	R 481	RS1/16S152J
R 421	RS1/16S181J	R 482	RS1/16S152J
R 422	RS1/16S472J	R 483	RS1/16S152J
R 423	RS1/16S472J	R 484	RS1/16S152J
R 424	RS1/16S750J	R 485	RS1/16S152J
R 425	RS1/16S472J	R 486	RS1/16S152J
R 426	RS1/16S472J	R 487	RS1/16S152J
R 427	RS1/16S101J	R 488	RS1/16S152J
R 428	RS1/16S472J	R 489	RS1/16S152J
R 429	RS1/16S472J	R 490	RS1/16S152J
R 430	RS1/16S152J	R 491	RS1/16S272J
R 431	RS1/16S101J	R 492	RS1/16S472J
R 432	RS1/16S472J	R 493	RS1/16S272J
R 433	RS1/16S472J	R 494	RS1/16S472J
R 434	RS1/16S472J	R 495	RS1/16S272J

Circuit Symbol and No.	Part No.
R 496	RS1/16S472J
R 497	RS1/16S272J
R 498	RS1/16S472J
R 499	RS1/16S152J
R 500	RS1/16S102J
R 501	RS1/16S471J
R 502	RS1/16S102J
R 503	RS1/16S471J
R 504	RS1/16S0R0J
R 505	RS1/16S0R0J
R 507	RS1/16S102J
R 508	RS1/16S102J
R 509	RS1/16S0R0J
R 510	RS1/16S0R0J
R 511	RS1/16S0R0J
R 512	RS1/16S0R0J
R 513	RS1/16S102J
R 514	RS1/16S0R0J
R 515	RS1/16S0R0J
R 516	RS1/16S471J
R 517	RS1/16S0R0J
R 518	RS1/16S102J
R 519	RS1/16S102J
R 520	RS1/16S0R0J
R 521	RS1/16S0R0J
R 522	RS1/16S0R0J
R 523	RS1/16S0R0J
R 524	RS1/16S0R0J
R 525	RS1/16S221J
R 526	RS1/16S221J
R 527	RS1/16S221J
R 528	RS1/16S221J
R 529	RS1/16S102J
R 530	RS1/16S102J
R 531	RS1/16S0R0J
R 532	RS1/16S0R0J
R 551	RS1/16S681J
R 552	RS1/16S331J
R 553	RS1/16S272J
R 554	RS1/16S681J
R 555	RS1/16S101J
R 601	RS1/16S102J
R 602	RS1/16S102J
R 603	RS1/16S102J
R 604	RS1/16S822J
R 605	RS1/16S222J
R 606	RS1/16S472J
R 607	RS1/16S472J
R 608	RAB4C222J
R 609	RS1/16S332J
R 610	RS1/16S332J
R 611	RS1/16S102J
R 612	RS1/16S102J
R 613	RS1/16S103J
R 614	RS1/16S223J
R 615	RS1/16S473J
R 616	RS1/16S472J
R 617	RS1/16S473J
R 618	RS1/16S472J
R 619	RS1/16S103J

Circuit Symbol and No.	Part No.
R 620	RS1/16S104J
R 621	RS1/16S473J
R 622	RS1/16S473J
R 623	RS1/16S473J
R 624	RS1/16S473J
R 625 (EW model)	RAB4C101J
R 626	RS1/16S473J
R 627	RS1/16S102J
R 629	RS1/16S472J
R 630	RS1/16S102J
R 631	RS1/16S473J
R 633	RAB4C102J
R 634	RAB4C102J
R 635	RS1/16S473J
R 636	RS1/16S102J
R 638	RS1/16S102J
R 639	RAB4C102J
R 640	RS1/16S473J
R 641	RS1/16S102J
R 642	RS1/16S102J
R 643	RS1/16S472J
R 644	RS1/16S103J
R 648	RS1/16S101J
R 650 (EW model)	RS1/16S102J
R 652	RS1/16S221J
R 653	RS1/16S681J
R 654	RS1/16S473J
R 655	RS1/16S102J
R 656	RS1/16S473J
R 657	RS1/16S102J
R 658	RS1/16S473J
R 659	RS1/16S473J
R 660	RS1/16S104J
R 661	RS1/16S104J
R 662	RS1/16S473J
R 663	RS1/16S473J
R 665	RAB4C102J
R 666	RS1/16S473J
R 667	RS1/16S0R0J
R 668	RS1/16S473J
R 669	RS1/16S473J
R 670 (EW model)	RS1/16S473J
R 671	RS1/16S473J
R 673	RS1/16S472J
R 674	RS1/16S681J
R 675	RS1/16S681J
R 676	RS1/16S104J
R 678	RS1/16S104J
R 679	RAB4C681J
R 680	RS1/16S102J
R 681	RAB4C102J
R 682	RS1/16S102J
R 683	RS1/16S0R0J
R 684	RS1/16S102J
R 685	RS1/16S681J
R 686	RS1/16S681J
R 689	RS1/16S104J
R 690	RS1/16S104J
R 692	RS1/16S473J
R 693	RS1/16S223J

Circuit Symbol and No.		Part No.
R 694		RS1/16S472J
R 695		RS1/16S223J
R 696		RS1/16S472J
R 697		RS1/16S223J
R 698	(EW model)	RS1/16S472J
R 699	(EW model)	RS1/16S223J
R 700		RS1/16S473J
R 701		RS1/16S102J
R 702		RS1/16S473J
R 703		RS1/16S103J
R 704		RS1/16S103J
R 705		RS1/16S104J
R 706		RS1/16S102J
R 707		RS1/16S223J
R 708		RS1/16S473J
R 709		RS1/16S473J
R 710		RS1/16S102J
R 711		RS1/16S473J
R 712		RS1/16S472J
R 713		RS1/16S472J
R 714		RS1/16S472J
R 715		RS1/16S103J
R 716		RS1/16S153J
R 717		RS1/16S473J
R 718		RS1/16S222J
R 719		RS1/16S104J
R 801		RS1/16S103J
R 802		RS1/16S221J
R 803		RS1/16S221J
R 804		RS1/16S103J
R 805		RS1/16S102J
R 806		RS1/16S473J
R 807		RS1/16S221J
R 808		RS1/16S103J
R 809		RS1/16S473J
R 810		RS1/16S221J
R 811		RS1/16S103J
R 812		RS1/16S473J
R 813		RS1/16S223J
R 814		RS1/16S1201D
R 815		RS1/16S4701D
R 816		RS1/16S8201D
R 817		RS1/16S1001D
R 819		RS1/16S220J
R 820		RS1/16S1001D
R 821		RS1/16S822J
R 822		RS1/16S822J
R 823		RS1/16S4701D
R 824		RS1/16S2R2J
R 825		RS1/16S2R2J
R 826		RS1/16S0R0J
R 827		RS1/16S2R2J
R 828		RS1/16S2R2J
R 829		RS1/16S223J
R 830		RS1/16S223J
R 831		RS1/16S4301D
R 832		RS1/16S6801D
R 833		RS1/16S0R0J
R 834		RS1/16S3301D
R 835		RS1/16S1500D
R 836		RS1/16S3901D
R 837		RS1/16S102J
R 838	2.7kΩ	CCN1143
R 839		RS1/16S331J
R 840		RS1/16S331J
R 841	2.7kΩ	CCN1143
R 842	2.7kΩ	CCN1143
R 843	2.7kΩ	CCN1143
R 844		RS1/16S100J
R 845		RS1/16S100J
R 846	10Ω	CCN1148
R 847	10Ω	CCN1148
R 848		RS1/16S472J
R 849	10Ω	CCN1148
R 850		RS1/16S181J
R 851		RS1/16S181J
R 852		RS1/16S332J
R 853		RS1/16S181J
R 854		RS1/16S181J
R 855		RS1/16S181J
R 856		RS1/16S181J
R 857		RS1/16S472J
R 858		RS1/16S102J
R 859		RS1/16S1202D
R 860		RS1/16S2701D
R 861		RS1/16S8201D
R 862		RS1/16S5600D
R 863		RS1/16S104J
R 864		RS1/16S391J
R 865		RS1/16S222J
R 866		RS1/16S472J
R 867		RS1/16S222J
R 868		RS1/16S472J
R 869		RS1/16S271J
R 870		RS1/16S103J
R 871		RS1/16S332J
R 872		RS1/16S271J
R 873		RS1/16S121J
R 874		RS1/16S103J
R 875		RS1/16S332J
R 876		RS1/16S121J
R 877		RS1/16S271J
R 878		RS1/16S103J
R 879		RS1/16S103J
R 880		RS1/16S471J
R 881		RS1/16S121J
R 882		RS1/16S103J
R 883		RS1/16S332J
R 884		RS1/16S820J
R 885		RS1/16S820J
R 886		RS1/16S103J
R 887		RS1/16S332J
R 888		RS1/16S103J
R 889		RS1/16S332J
R 890		RS1/16S330J
R 891		RS1/16S330J
R 892		RS1/16S330J
R 893		RS1/16S103J
R 894		RS1/16S103J
R 895		RS1/16S104J

Circuit Symbol and No.	Part No.	Circuit Symbol and No.	Part No.
R 896	RS1/16S104J	R 1451	RS1/16S124J
R 897	RS1/16S331J	R 1452	RS1/16S473J
R 898	RS1/16S473J	R 1453	RS1/16S0R0J
R 899	RS1/16S0R0J	R 1454	RS1/16S101J
R 901	RS1/10S301J	R 1455	RS1/16S473J
R 902	RS1/10S301J	R 1456	RAB4CQ102J
R 903	RS1/16S153J	R 1460	RS1/16S102J
R 905	RS1/16S102J	R 1461	RS1/16S102J
R 906	RS1/16S102J	R 1462	RS1/16S471J
R 907	RS1/16S102J	R 1463	RS1/16S102J
R 911	RS1/16S0R0J	R 1464	RAB4CQ221J
R 912	RS1/16S0R0J	R 1465	RS1/16S102J
R 913	RS1/16S0R0J	R 1467	RS1/16S473J
R 914	RS1/16SS4R7J	R 1469	RS1/16S473J
R 915	RS1/16SS4R7J	R 1470	RS1/16S470J
R 916	RS1/16S4R7J	R 1471	RS1/16S470J
R 1401	RAB4CQ101J	R 1473	RS1/16S470J
R 1402	RAB4CQ101J	R 1474	RS1/16S470J
R 1403	RAB4CQ470J	R 1475	RS1/16S821J
R 1404	RAB4CQ470J	R 1476	RS1/16S470J
R 1405	RAB4CQ101J	R 1477	RS1/16S821J
R 1406	RS1/16S101J	R 1479	RS1/16S473J
R 1407	RS1/16S101J	R 1480	RS1/16S470J
R 1408	RS1/16S102J	R 1481	RS1/16S470J
R 1409	RS1/16S102J	R 1482	RS1/16S102J
R 1410	RS1/16S105J	R 1483	RS1/16S102J
R 1411	RS1/16S105J	R 1484	RS1/16S470J
R 1412	RS1/16S103J	R 1485	RS1/16S473J
R 1413	RS1/16S102J	R 1486	RS1/16S473J
R 1414	RS1/16S821J	R 1487	RAB4CQ102J
R 1415	RS1/16S102J	R 1488	RS1/16S222J
R 1416	RAB4CQ101J	R 1497	RS1/16S0R0J
R 1417	RAB4CQ101J	R 1501	RS1/16S473J
R 1418	RAB4CQ470J	R 1502	RS1/16S473J
R 1419	RAB4CQ470J	R 1503	RS1/16S473J
R 1420	RS1/16S0R0J	R 1504	RS1/16S104J
R 1423	RS1/16S473J	R 1505	RS1/16S273J
R 1424	RS1/16S473J	R 1506	RS1/16S563J
R 1425	RAB4CQ101J	R 1507	RS1/16S151J
R 1426	RAB4CQ101J	R 1508	RS1/16S151J
R 1427	RAB4CQ470J	R 1510	RAB4CQ470J
R 1428	RAB4CQ470J	R 1511	RAB4CQ470J
R 1429	RAB4CQ101J	R 1512	RAB4CQ470J
R 1430	RS1/16S101J	R 1513	RAB4CQ101J
R 1431	RS1/16S101J	R 1514	RAB4CQ101J
R 1432	RS1/16S471J	R 1515	RAB4CQ101J
R 1433	RS1/16S471J	R 1516	RAB4CQ101J
R 1434	RS1/16S473J	R 1517	RAB4CQ101J
R 1435	RS1/16S471J	R 1518	RS1/16S0R0J
R 1436	RS1/16S473J	R 1519	RS1/16S101J
R 1439	RS1/16S102J	R 1520	RS1/16S0R0J
R 1440	RS1/16S821J	R 1521	RS1/16S680J
R 1441	RAB4CQ101J	R 1522	RS1/16S105J
R 1442	RAB4CQ101J	R 1524	RS1/16S101J
R 1443	RAB4CQ470J	R 1526	RS1/16S220J
R 1444	RAB4CQ470J	R 1527	RS1/16S473J
R 1445	RS1/16S821J	R 1528	RAB4CQ470J
R 1446	RS1/16S471J	R 1530	RS1/16S473J
R 1449	RS1/16S821J	R 1531	RS1/16S470J
R 1450	RS1/16S102J	R 1534	RS1/16S471J

Circuit Symbol and No.	Part No.
R 1535	RS1/16S330J
R 1536	RS1/16S102J
R 1537	RS1/16S102J
R 1538	RS1/16S102J
R 1539	RS1/16S102J
R 1540	RS1/16S473J
R 1543	RAB4CQ470J
R 1544	RS1/16S101J
R 1545	RS1/16S151J
R 1546	RS1/16S151J
R 1547	RAB4CQ470J
R 1549	RS1/16S473J
R 1550	RAB4CQ470J
R 1551	RS1/16S101J
R 1552	RS1/16S302J
R 1553	RAB4CQ470J
R 1554	RS1/16S101J
R 1555	RS1/16S470J
R 1556	RS1/16S470J
R 1557	RS1/16S471J
R 1558	RS1/16S470J
R 1559	RS1/16S470J
R 1560	RS1/16S471J
R 1561	RS1/16S470J
R 1562	RS1/16S470J
R 1563	RS1/16S473J
R 1564	RS1/16S470J
R 1565	RS1/16S473J
R 1566	RS1/16S473J
R 1567	RAB4CQ680J
R 1568	RS1/16S473J
R 1569	RS1/16S331J
R 1570	RS1/16S331J
R 1571	RS1/16S331J
R 1572	RS1/16S333J
R 1573	RS1/16S153J
R 1574	RS1/16S333J
R 1575	RS1/16S153J
R 1576	RS1/16S333J
R 1577	RS1/16S153J
R 1578	RAB4CQ680J
R 1579	RAB4CQ680J
R 1580	RS1/16S102J
R 1581	RS1/16S102J
R 1582	RS1/16S102J
R 1583	RS1/16S470J
R 1584	RS1/16S470J
R 1585	RS1/16S0R0J
R 1586	RS1/16S0R0J
R 1587	RS1/16S0R0J
R 1588	RS1/16S103J
R 1589	RS1/16S103J
R 1590	RS1/16S103J
R 1591	RS1/16S103J

CAPACITORS

Circuit Symbol and No.		Part No.
C 101		CCSRCH471J50
C 102		CKSRYB104K16
C 103		CKSRYB104K16
C 104		CKSRYB104K16
C 105		CKSRYB102K50
C 106		CCSRCH150J50
C 107		CKSRYB104K16
C 108		CKSYB106K6R3
C 109		CKSRYB222K50
C 110		CKSRYB104K16
C 111		CKSRYB102K50
C 112		CKSRYB102K50
C 153		CKSYB106K6R3
C 155		CKSRYB102K50
C 156		CKSYB475K10
C 157		CKSRYB103K50
C 158		CEVLW220M6R3
C 159		CEVLW101M10
C 160		CKSRYB102K50
C 201		CKSRYB105K6R3
C 202		CKSRYB105K6R3
C 203		CKSRYB105K6R3
C 204		CKSRYB105K6R3
C 205		CKSRYB224K10
C 206		CKSRYB224K10
C 207		CKSRYB105K6R3
C 208		CKSRYB105K6R3
C 209		CKSRYB105K6R3
C 210		CKSRYB105K6R3
C 213		CKSRYB102K50
C 214		CEVLW470M16
C 215		CKSRYB104K16
C 216		CKSYB475K10
C 217		CKSYB475K10
C 218		CKSYB475K10
C 219		CKSYB475K10
C 222		CKSYB475K10
C 223		CKSYB475K10
C 224		CKSYB475K10
C 225		CKSYB475K10
C 226		CCSRCH100D50
C 227		CCSRCH100D50
C 228		CKSRYB104K16
C 229		CCSRCH100D50
C 230		CCSRCH100D50
C 231		CCSRCH100D50
C 232		CCSRCH100D50
C 233		CKSRYB104K16
C 234		CKSRYB104K16
C 235		CKSRYB104K16
C 236		CEVLW100M16
C 237		CKSRYB224K10
C 238		CKSRYB105K10
C 239		CKSRYB105K10
C 240		CEVLW100M16
C 241		CKSRYB105K10
C 242		CKSRYB105K10
C 243		CKSRYB105K10
C 244		CKSRYB105K10
C 245	10µF	CCG1182
C 246		CEVLW101M10
C 247		CKSRYB105K10
C 248		CKSRYB105K10

Circuit Symbol and No.		Part No.
C 249		CKSYB475K10
C 250		CEVLW330M25
C 251		CKSQYB225K10
C 252		CKSQYB225K10
C 253		CKSQYB225K10
C 254		CKSQYB225K10
C 255		CKSQYB225K10
C 256		CKSQYB225K10
C 257		CEVLW100M16
C 259		CKSRYB105K10
C 260		CEVLW330M25
C 261	10µF	CCG1182
C 262	10µF	CCG1182
C 263	10µF	CCG1182
C 264	10µF	CCG1182
C 265	10µF	CCG1182
C 266	10µF	CCG1182
C 267		CKSYB684K16
C 268		CEVLW330M25
C 269	10µF	CCG1138
C 270	1000µF/16V	CCH1428
C 272	10µF	CCG1182
C 273		CKSYB475K16
C 274		CKSYB475K16
C 275		CKSRYB222K50
C 276		CKSRYB222K50
C 277		CKSRYB222K50
C 278		CKSRYB222K50
C 279		CKSRYB222K50
C 280		CKSRYB222K50
C 281		CKSRYB473K50
C 282	10µF	CCG1182
C 285		CKSRYB104K16
C 303		CEVW101M16
C 304		CKSYB475K10
C 305		CKSYB475K16
C 306		CKSYB475K16
C 307		CCSRCH220J50
C 308		CCSRCH220J50
C 309		CEVLW100M16
C 310		CEVLW100M16
C 311		CKSRYB102K50
C 312		CKSRYB105K10
C 313		CEVLW470M16
C 351		CKSQYB105K16
C 352		CKSQYB105K16
C 355		CEVLW100M16
C 356		CKSRYB104K16
C 357		CKSYB106K6R3
C 358		CKSRYB104K16
C 359		CKSRYB104K16
C 360		CKSRYB104K16
C 362		CKSRYB104K16
C 401		CEVLW100M16
C 402		CKSRYB105K6R3
C 403		CKSRYB105K6R3
C 404		CKSRYB104K16
C 405		CKSRYB105K6R3
C 406		CKSRYB105K6R3
C 407		CKSRYB104K16

Circuit Symbol and No.		Part No.
C 408		CKSRYB105K6R3
C 409		CKSRYB105K6R3
C 410		CKSYB475K16
C 411		CKSRYB104K16
C 412		CKSRYB104K16
C 413		CKSRYB105K6R3
C 414		CKSRYB104K16
C 415		CKSRYB105K6R3
C 416		CKSYB106K6R3
C 417		CKSYB106K6R3
C 418		CKSYB475K16
C 419		CEVLW100M16
C 420		CKSYB475K16
C 421		CKSYB106K6R3
C 422		CEVLW100M16
C 424		CKSRYB104K16
C 425		CKSYB106K6R3
C 426		CKSRYB104K16
C 428		CCSRCH6R0D50
C 429		CKSRYB104K16
C 430		CKSYB106K6R3
C 431		CCSRCH6R0D50
C 433		CKSYB106K6R3
C 434		CKSRYB104K16
C 435		CCSRCH6R0D50
C 436		CKSYB106K6R3
C 437		CKSRYB105K6R3
C 438		CKSRYB104K16
C 439		CKSRYB105K6R3
C 440		CKSRYB105K6R3
C 441		CEVLW221M4
C 442		CEVLW221M4
C 443		CEVLW221M4
C 444		CKSRYB104K16
C 445		CKSRYB105K6R3
C 446		CKSRYB105K6R3
C 447		CKSRYB102K50
C 448		CKSRYB102K50
C 449		CKSRYB104K16
C 450		CKSQYB225K10
C 451		CKSYB106K6R3
C 452		CKSRYB104K16
C 453		CKSRYB105K6R3
C 454		CKSRYB102K50
C 455		CKSRYB104K16
C 456		CKSYB106K6R3
C 458		CCSRCH6R0D50
C 459		CKSYB106K6R3
C 460		CKSRYB105K6R3
C 461		CKSRYB105K6R3
C 462		CCSRCH6R0D50
C 464	47µF	CCG1181
C 465	47µF	CCG1181
C 466		CEVLW101M10
C 467		CKSRYB105K6R3
C 468		CKSYB106K6R3
C 469		CEVLW100M16
C 470		CKSRYB104K16
C 471		CKSRYB104K16
C 472		CKSYB106K6R3

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
C 473		CKSYB106K6R3	C 824		CCSRCH681J50
C 474		CKSYB106K6R3	C 825		CKSRYB103K50
C 475		CKSYB106K6R3	C 826		CKSRYB182K50
C 476		CKSYB106K6R3	C 827		CKSRYB103K50
C 477		CCSRCH6R0D50	C 829		CKSRYB104K16
C 478		CCSRCH6R0D50	C 830		CCSRCH100D50
C 479		CCSRCH6R0D50	C 831		CCSRCH470J50
C 480		CKSYB106K6R3	C 832		CCSRCH102J50
C 481		CKSYB106K6R3	C 833		CCSRCH102J50
C 482		CKSYB106K6R3	C 835		CKSSYB104K10
C 483		CKSRYB102K50	C 836		CKSRYB104K16
C 484		CKSRYB104K16	C 837		CKSSYB104K10
C 485		CKSRYB104K16	C 838		CKSQYB105K16
C 486		CKSRYB102K50	C 839		CKSQYB105K16
C 487		CKSRYB104K16	C 840		CSZS4R7M16
C 488		CCSRCH6R0D50	C 841		CSZS4R7M16
C 489		CKSRYB104K16	C 842		CKSRYB104K16
C 490		CEVLW101M10	C 843		CKSRYB104K16
C 551		CKSRYB105K6R3	C 844		CKSRYB102K50
C 555		CEVLW101M10	C 845	10µF	CCG1138
C 604		CKSRYB103K50	C 846		CEHAZL471M16
C 605		CKSRYB103K50	C 847	22µF	CCG1183
C 606		CEVLW2R2M50	C 848	22µF	CCG1183
C 607		CKSRYB105K6R3	C 849	47µF	CCG1181
C 608		CKSRYB105K6R3	C 850	10µF	CCG1138
C 609		CKSRYB104K16	C 851	47µF	CCG1181
C 610		CCSRCH101J50	C 853		CKSRYB105K10
C 612		CCSRCH7R0D50	C 854		CKSRYB105K10
C 613		CCSRCH7R0D50	C 855	2200µF/16V	CCH1405
C 614		CKSRYB105K6R3	C 856		CKSRYB105K10
C 615		CKSRYB104K25	C 858		CKSYB225K16
C 616		CKSRYB104K25	C 861		CKSRYB474K10
C 617		CKSRYB104K25	C 862		CEVLW470M16
C 618	(EW model)	CKSRYB104K25	C 863		CKSRYB104K16
C 619		CCSRCH100D50	C 864		CCSRCH102J50
C 620		CCSRCH100D50	C 865		CEVLW470M16
C 621		CCSRCH680J50	C 866		CKSRYB103K50
C 701		CKSRYB105K10	C 867		CKSRYB103K50
C 702		CKSRYB104K16	C 868		CEVLW100M16
C 703		CKSRYB104K16	C 869	10µF	CCG1182
C 704		CKSRYB103K50	C 870		CEVLW101M10
C 705		CKSQYB104K16	C 871		CKSRYB104K16
C 706		CKSRYB104K16	C 872		CKSRYB103K50
C 708		CKSRYB104K16	C 873	0.1µF	CCL1059
C 801	0.22µF	CCL1058	C 874		CKSRYB103K50
C 802		CKSYB106K6R3	C 875		CKSRYB103K50
C 803		CKSRYB103K50	C 876		CEVW101M16
C 804		CCSRCH102J50	C 877		CEVW101M16
C 805		CCSRCH102J50	C 878		CKSRYB104K16
C 806		CKSRYB103K50	C 881		CKSRYB103K50
C 807		CCSRCH102J50	C 882		CKSRYB103K50
C 808		CKSRYB103K50	C 883		CKSRYB103K50
C 809		CKSRYB104K16	C 884		CEVLW100M16
C 811		CCSRCH470J50	C 885		CKSRYB103K50
C 817		CCSRCH471J50	C 886	1000µF/16V	CCH1428
C 818		CCSRCH390J50	C 887	10µF	CCG1138
C 819		CKSRYB222K50	C 890		CCSRCH151J50
C 821		CKSRYB472K50	C 891		CCSRCH151J50
C 822	2200µF/16V	CCH1405	C 892		CCSRCH151J50
C 823		CCSRCH181J50	C 893		CKSRYB105K6R3

Circuit Symbol and No.		Part No.
C 894		CKSRYB103K50
C 895		CKSRYB105K6R3
C 901		CKSRYB104K16
C 902	100µF/16V	CCH1228
C 903	100µF/16V	CCH1228
C 904	1000µF/16V	CCH1428
C 1401		CKSRYB102K50
C 1402		CKSRYB102K50
C 1403		CKSRYB102K50
C 1404		CKSRYB102K50
C 1405		CKSRYB104K16
C 1406		CKSRYB104K16
C 1407		CSZSC101M10
C 1408		CKSRYB104K16
C 1409		CKSRYB104K16
C 1410		CKSRYB104K16
C 1411		CKSRYB104K16
C 1412		CKSRYB104K16
C 1413		CKSRYB104K16
C 1414		CSZSC101M10
C 1415		CKSRYB104K16
C 1416		CKSRYB105K6R3
C 1417		CKSRYB104K16
C 1418		CKSRYB104K16
C 1419		CKSRYB104K16
C 1420		CKSRYB104K16
C 1421		CKSRYB104K16
C 1422		CKSRYB103K50
C 1424		CKSRYB104K16
C 1425		CSZSC101M10
C 1426		CKSRYB103K50
C 1427		CKSRYB104K16
C 1428		CKSRYB104K16
C 1429		CKSRYB104K16
C 1430		CKSRYB104K16
C 1431		CKSRYB104K16
C 1432		CKSRYB104K16
C 1433		CKSRYB105K6R3
C 1434		CKSRYB104K16
C 1436		CSZSC101M10
C 1437		CKSRYB105K6R3
C 1438		CKSRYB105K6R3
C 1439		CKSRYB105K6R3
C 1440		CKSRYB105K6R3
C 1441		CKSRYB105K6R3
C 1442		CSZSC101M10
C 1443		CKSRYB104K16
C 1446		CKSRYB105K6R3
C 1447		CKSRYB105K6R3
C 1448		CKSRYB105K6R3
C 1449		CKSRYB105K6R3
C 1450		CKSRYB105K6R3
C 1451		CKSRYB105K6R3
C 1452		CKSRYB105K6R3
C 1453		CCSRCH221J50
C 1454		CCSRCH220J50
C 1455		CCSRCH471J50
C 1456		CKSRYB105K6R3
C 1457		CKSRYB105K6R3
C 1459		CCSRCH471J50

Circuit Symbol and No.	Part No.
C 1460	CKSRYB105K6R3
C 1463	CKSRYB105K6R3
C 1464	CKSRYB105K6R3
C 1467	CKSYB475K10
C 1468	CKSRYB104K16
C 1469	CKSRYB104K16
C 1470	CKSRYB105K6R3
C 1471	CKSYB475K10
C 1472	CKSRYB104K16
C 1473	CKSYB475K10
C 1474	CKSRYB105K6R3
C 1475	CKSRYB105K6R3
C 1477	CKSRYB105K6R3
C 1478	CKSRYB105K6R3
C 1479	CKSRYB105K6R3
C 1480	CKSRYB105K6R3
C 1481	CKSYB106K6R3
C 1482	CKSYB106K6R3
C 1483	CKSYB106K6R3
C 1484	CKSYB106K6R3
C 1485	CKSYB106K6R3
C 1486	CKSYB106K6R3

Mother Unit Consists of Mother PCB Relay PCB

AB

Unit Number:CWM9144(RC model)
Unit Number:CWM9145(RD model)
Unit Name:Mother Unit

MISCELLANEOUS

IC 102	IC	HA12240FP
IC 103	IC	TC7SET08FU
IC 151	IC	SM5304AV
IC 152	IC	TC74VHC08FT
IC 153	IC	TC7SET08FU
IC 201	IC	PML009A
IC 202	IC	PAL007A
IC 203	IC	PA2028A
IC 301	IC	NJM4558V
IC 402	IC	TA2050F
IC 403	IC	TA2050F
IC 404	IC	NJM2136V
IC 406	IC	NJM2136V
IC 407	IC	NJM2136V
IC 408	IC	CXA2089Q
IC 409	IC	BA7623F
IC 410	IC	NJM2136V
IC 601	IC	PE5416A
IC 602	IC	PDH089A
IC 603	IC	S-80841CNUA-B82
IC 801	IC	S-812C33AUA-C2N
IC 802	IC	LTC3728EG
IC 803	IC	LTC3728EG
IC 804	IC	BA00BC0WFP

Circuit Symbol and No.		Part No.
IC 805	IC	S-812C50AUA-C3E
IC 806	IC	S-814A33AMC-BCX
IC 1401	IC	PE5417A
IC 1403	IC	TC7WHU04FU
IC 1404	IC	S-80827CNUA-B8M
IC 1405	IC	TC7SET08FU
IC 1407	IC	TC74VCX02FT
IC 1408	IC	BA3834F
IC 1410	IC	PD8125A
IC 1411	IC	PD8126A
IC 1414	IC	TC7SZ04FU
IC 1451	IC	HD64413ASFI
IC 1452	IC	K4S641632H-TC75
Q 102	Transistor	2SC4081
Q 103	Transistor	UMF23N
Q 151	Transistor	IMD2A
Q 152	Transistor	IMX9
Q 201	Transistor	2SC4081
Q 202	Transistor	IMD2A
Q 203	Transistor	DTC124EU
Q 204	Transistor	DTC144EU
Q 205	Transistor	2SC4081
Q 206	Transistor	IMX9
Q 207	Transistor	IMX9
Q 208	Transistor	IMX9
Q 209	Transistor	IMD2A
Q 301	Transistor	IMX9
Q 302	Transistor	IMD2A
Q 303	Transistor	2SC4081
Q 401	Transistor	2SC4081
Q 402	Transistor	2SC4081
Q 404	Transistor	2SC4081
Q 406	Transistor	2SC4081
Q 551	Transistor	2SC4081
Q 552	Transistor	2SA1577
Q 601	Transistor	UMF23N
Q 603	Transistor	DTA114EU
Q 604	Transistor	DTC144EU
Q 605	Transistor	2SC4081
Q 606	Transistor	2SC4081
Q 608	Transistor	2SC4081
Q 609	Transistor	2SA1577
Q 610	Transistor	DTC144EU
Q 611	Transistor	2SA1577
Q 612	Transistor	DTC144EU
Q 613	Transistor	2SA1577
Q 614	Transistor	DTC144EU
Q 617	Transistor	DTC124EU
Q 701	Transistor	IMX1
Q 702	Transistor	DTC114EU
Q 703	Transistor	2SA1576
Q 704	Transistor	2SA1576
Q 705	Transistor	2SC4081
Q 801	Transistor	DTC124EU
Q 802	Transistor	DTC124EU
Q 803	Transistor	2SB1708
Q 805	Transistor	2SB1708
Q 806	Transistor	2SC4081
Q 807	Transistor	2SB1708
Q 808	Transistor	DTC124EU

Circuit Symbol and No.		Part No.
Q 809	Transistor	DTC124EU
Q 810	Transistor	DTC124EU
Q 811	Transistor	DTC124EU
Q 812	Transistor	UMF5N
Q 813	Transistor	DTC124EU
Q 814	Transistor	DTC124EU
Q 815	Transistor	2SB1184F5
Q 816	Transistor	2SD1767
Q 817	Transistor	IMD2A
Q 818	Transistor	2SD1767
Q 819	Transistor	DTC114EU
Q 821	FET	SP8K4
Q 822	FET	SP8K4
Q 823	FET	SP8K4
Q 824	Transistor	DTC124EU
Q 825	Transistor	2SA1797
Q 827	Transistor	DTC144EU
Q 828	Transistor	2SD1767
Q 829	Transistor	DTC124EU
Q 830	Transistor	2SB1708
Q 831	Transistor	DTC124EU
Q 832	Transistor	2SB1708
Q 833	Transistor	2SD1760F5
Q 834	Transistor	UMF5N
Q 835	Transistor	UMF5N
Q 836	Transistor	2SD2375
Q 837	Transistor	UMF5N
Q 838	Transistor	2SB1184F5
Q 839	Transistor	IMD2A
Q 840	Transistor	UMF5N
Q 841	Transistor	2SD1767
Q 842	Transistor	UMF5N
Q 843	Transistor	UMF5N
Q 844	Transistor	2SD1767
Q 845	Transistor	UMF5N
Q 901	Transistor	DTC114EU
Q 902	Transistor	2SA1615-Z
Q 1401	Transistor	FMG12
Q 1402	Transistor	UMF5N
Q 1403	Transistor	UMF5N
Q 1405	Transistor	2SA1774
Q 1406	Transistor	2SA1774
Q 1407	Transistor	2SA1774
D 118	Diode	UDZS5R6(B)
D 119	Diode	UDZS5R6(B)
D 201	Diode	DAN202U
D 202	Diode	DAN202U
D 203	Diode	DAN202U
D 204	Diode	UDZS8R2(B)
D 205	Diode	DAN202U
D 206	Diode	1SS355
D 301	Diode	RSX201L-30
D 601	Diode	UDZS5R6(B)
D 602	Diode Network	DA204U
D 603	Diode Network	DA204U
D 604	Diode Network	DA204U
D 605	Diode Network	DA204U
D 606	Diode Network	DA204U
D 607	Diode Network	DA204U
D 608	Diode Network	DA204U

Circuit Symbol and No.			Part No.
D	609	Diode	1SS355
D	610	Diode	1SS355
D	611	Diode	DAN202U
D	612	Diode	1SS355
D	701	Diode	1SS355
D	702	Diode	HZU6R8(B2)
D	703	Diode	UDZS7R5(B)
D	704	Diode	DAN202U
D	705	Diode	DAN202U
D	706	Diode	S1G-6904G2P
D	707	Diode	S1G-6904G2P
D	708	Diode	5KP24A
D	801	Diode	S1G-6904G2P
D	802	Diode	UDZS18(B)
D	803	Diode	RSX201L-30
D	804	Diode	HZU8R2(B1)
D	805	Diode	DAN202U
D	806	Diode	HZU5R6(B2)
D	807	Diode	RB500V-40
D	808	Diode	RB500V-40
D	809	Diode	RB500V-40
D	811	Diode	RB160L-40
D	812	Diode	RB160L-40
D	813	Diode	RB160L-40
D	814	Diode	S1G-6904G2P
D	815	Diode	S2G-6600
D	816	Diode	RSX201L-30
D	817	Diode	S2G-6600
D	819	Diode	UDZS5R6(B)
D	820	Diode	S2G-6600
D	821	Diode	DAN202U
D	822	Diode	HZU6R8(B3)
D	823	Diode	HZU10(B1)
D	825	Diode	UDZS20(B)
D	826	Diode	HZU6R8(B3)
D	827	Diode	DAN202U
D	828	Diode	1SS355
D	829	Diode	1SS355
D	830	Diode	1SS355
D	831	Diode	RSX201L-30
D	1401	Diode	1SS355
D	1402	Diode	1SS355
L	101	Inductor	CTF1379
L	102	Inductor	LCTC2R2K1608
L	103	Inductor	CTF1379
L	110	Inductor	CTF1389
L	151	Coil	CTH1295
L	152	Inductor	CTF1399
L	153	Inductor	CTF1399
L	154	Inductor	CTF1305
L	155	Inductor	CTF1305
L	157	Inductor	CTF1473
L	158	Inductor	CTF1473
L	201	Inductor	LCTA2R2J2520
L	202	Inductor	LCTA101J2520
L	301	Inductor	CTF1379
L	302	Inductor	CTF1379
L	303	Inductor	CTF1399
L	401	Inductor	CTF1383
L	403	Inductor	CTF1399

Circuit Symbol and No.			Part No.
L	404	Inductor	LCTA150J2520
L	406	Inductor	CTF1399
L	407	Inductor	CTF1399
L	408	Inductor	LCTA100J2520
L	409	Inductor	CTF1383
L	412	Inductor	CTF1399
L	413	Inductor	CTF1399
L	415	Inductor	CTF1399
L	551	Inductor	CTF1399
L	601	Inductor	CTF1399
L	602	Inductor	CTF1306
L	603	Inductor	CTF1306
L	604	Inductor	LCTA2R2J2520
L	701	Inductor	LCTC2R2K1608
L	702	Inductor	LCTC2R2K1608
L	801	Coil	CTH1308
L	802	Coil	CTH1308
L	803	Coil	CTH1308
L	805	Coil	CTH1308
L	806	Inductor	LCTA1R0J3225
L	807	Coil	CTH1308
L	809	Inductor	CTF1383
L	901	Coil	CTH1267
L	902	Choke Coill 270µH	CTH1263
L	1401	Inductor	CTF1379
L	1402	Inductor	CTF1399
L	1403	Inductor	CTF1399
L	1404	Inductor	CTF1379
L	1406	Inductor	CTF1399
L	1407	Inductor	CTF1379
L	1408	Inductor	CTF1379
L	1409	Inductor	CTF1379
L	1410	Inductor	CTF1399
L	1411	Inductor	CTF1396
L	1414	Inductor	CTF1379
L	1415	Inductor	LCTC2R2K1608
L	1416	Inductor	LCTC2R2K1608
L	1417	Inductor	LCTC2R2K1608
L	1418	Inductor	CTF1379
L	1419	Inductor	CTF1379
L	1420	Inductor	CTF1379
L	1421	Inductor	CTF1379
L	1422	Inductor	CTF1379
L	1423	Inductor	CTF1379
L	1424	Inductor	CTF1379
L	1425	Inductor	CTF1379
L	1426	Inductor	CTF1379
L	1427	Inductor	CTF1379
L	1428	Inductor	CTF1389
L	1429	Inductor	CTF1389
L	1430	Inductor	CTF1389
X	601	Resonator 18.874368MHz	CSS1622
X	1401	Ceramic Resonator 4.97MHz	CSS1575
X	1452	Resonator 33.0MHz	CSS1656
VR401		Semi-fixed 1.5kΩ(OB)	CCP1391
FU102		Fuse 1A	CEK1280
FU103		Fuse 1A	CEK1280
FU107		Fuse 5A	CEK1289
FU151		Fuse 2.5A	CEK1285
FU152		Fuse 1A	CEK1280

Circuit Symbol and No.		Part No.
FU153	Fuse 2A	CEK1284
FU154	Fuse 250mA	CEK1276
FU155	Fuse 250mA	CEK1276
FU201	Fuse 3A	CEK1286
FU501	Fuse 250mA	CEK1276
FU502	Fuse 1.75A	CEK1283
FU701	Fuse 5A	CEK1289
FU802	Fuse 1.25A	CEK1281
FU804	Fuse 1A	CEK1280
FU805	Fuse 1A	CEK1280
FU901	Fuse 1.25A	CEK1281
FU902	Fuse 1.75A	CEK1283
EF801	EMI Filter	CCG1142
BZ601	Buzzer	CPV1063

RESISTORS

Circuit Symbol and No.	Part No.
R 103	RS1/16S681J
R 104	RS1/16S681J
R 105	RS1/16S0R0J
R 115	RS1/16S473J
R 116	RS1/16S473J
R 117	RS1/16S473J
R 118	RS1/16S472J
R 119	RS1/16S102J
R 120	RS1/16S101J
R 121	RS1/16S150J
R 122	RS1/16S470J
R 123	RS1/16S101J
R 124	RS1/16S222J
R 125	RS1/16S332J
R 126	RS1/16S562J
R 127	RS1/16S221J
R 128	RS1/16S621J
R 129	RS1/16S473J
R 130	RS1/16S121J
R 131	RS1/16S0R0J
R 133	RS1/16S102J
R 134	RS1/16S102J
R 151	RAB4C102J
R 153	RAB4C102J
R 157	RS1/16S0R0J
R 158	RS1/16S0R0J
R 159	RS1/16S472J
R 162	RS1/16S101J
R 163	RS1/16S102J
R 164	RS1/16S103J
R 165	RS1/16S103J
R 201	RS1/16S181J
R 202	RS1/16S181J
R 203	RS1/16S0R0J
R 204	RS1/16S0R0J
R 205	RS1/16S223J
R 206	RS1/16S223J
R 207	RS1/16S102J
R 208	RS1/16S102J
R 209	RS1/16S0R0J
R 210	RS1/16S0R0J
R 211	RS1/16S0R0J
R 212	RS1/16S0R0J

Circuit Symbol and No.	Part No.
R 213	RS1/16S0R0J
R 214	RS1/16S0R0J
R 215	RS1/16S0R0J
R 216	RS1/16S0R0J
R 217	RS1/16S224J
R 218	RS1/16S224J
R 219	RS1/16S104J
R 220	RS1/16S102J
R 221	RS1/16S103J
R 222	RS1/16S682J
R 223	RS1/16S103J
R 224	RS1/16S103J
R 225	RS1/16S103J
R 226	RS1/16S223J
R 227	RS1/16S221J
R 228	RS1/16S101J
R 229	RS1/16S103J
R 230	RS1/16S104J
R 231	RS1/16S820J
R 232	RS1/16S820J
R 233	RS1/16S820J
R 234	RS1/16S820J
R 235	RS1/16S820J
R 236	RS1/16S820J
R 237	RS1/16S473J
R 238	RS1/16S102J
R 239	RS1/16S223J
R 240	RS1/16S223J
R 241	RS1/16S223J
R 242	RS1/16S223J
R 243	RS1/16S223J
R 244	RS1/16S223J
R 245	RS1/16S471J
R 246	RS1/16S471J
R 247	RS1/16S471J
R 248	RS1/16S471J
R 249	RS1/16S471J
R 250	RS1/16S471J
R 251	RS1/16S103J
R 252	RS1/16S103J
R 253	RS1/16S103J
R 254	RS1/16S103J
R 255	RS1/16S103J
R 256	RS1/16S103J
R 257	RS1/16S473J
R 261	RS1/16S101J
R 301	RS1/16S0R0J
R 302	RS1/16S0R0J
R 303	RS1/16S223J
R 304	RS1/16S223J
R 305	RS1/16S821J
R 306	RS1/16S821J
R 307	RS1/16S222J
R 308	RS1/16S472J
R 309	RS1/16S472J
R 312	RS1/16S473J
R 313	RS1/16S473J
R 314	RS1/16S102J
R 315	RS1/16S272J
R 316	RS1/16S472J

Circuit Symbol and No.	Part No.
R 317	RS1/16S222J
R 318	RS1/16S222J
R 319	RS1/16S103J
R 320	RS1/16S103J
R 373	RS1/16S0R0J
R 374	RS1/16S0R0J
R 401	RS1/16S123J
R 402	RS1/16S123J
R 403	RS1/16S123J
R 404	RS1/16S223J
R 405	RS1/16S123J
R 406	RS1/16S223J
R 407	RS1/16S223J
R 408	RS1/16S102J
R 409	RS1/16S181J
R 410	RS1/16S181J
R 411	RS1/16S223J
R 413	RS1/16S102J
R 414	RS1/16S223J
R 415	RS1/16S223J
R 418	RS1/16S750J
R 422	RS1/16S472J
R 425	RS1/16S472J
R 427	RS1/16S101J
R 428	RS1/16S472J
R 433	RS1/16S472J
R 434	RS1/16S472J
R 436	RS1/16S750J
R 437	RS1/16S101J
R 438	RS1/16S472J
R 439	RS1/16S472J
R 440	RS1/16S270J
R 441	RS1/16S472J
R 442	RS1/16S102J
R 443	RS1/16S272J
R 444	RS1/16S392J
R 445	RS1/16S472J
R 446	RS1/16S102J
R 447	RS1/16S0R0J
R 450	RS1/16S562J
R 451	RS1/16S562J
R 452	RS1/16S272J
R 453	RS1/16S472J
R 454	RS1/16S0R0J
R 455	RS1/16S472J
R 456	RS1/16S101J
R 457	RS1/16S472J
R 458	RS1/16S750J
R 459	RS1/16S472J
R 460	RS1/16S473J
R 461	RS1/16S333J
R 462	RS1/16S0R0J
R 463	RS1/16S472J
R 464	RS1/16S101J
R 467	RS1/16S472J
R 468	RS1/16S102J
R 469	RS1/16S472J
R 470	RS1/16S472J
R 471	RS1/16S0R0J
R 472	RS1/16S222J

Circuit Symbol and No.	Part No.
R 473	RS1/16S222J
R 493	RS1/16S272J
R 494	RS1/16S472J
R 497	RS1/16S272J
R 498	RS1/16S472J
R 501	RS1/16S471J
R 502	RS1/16S102J
R 503	RS1/16S471J
R 504	RS1/16S0R0J
R 505	RS1/16S0R0J
R 507	RS1/16S102J
R 508	RS1/16S102J
R 509	RS1/16S0R0J
R 510	RS1/16S0R0J
R 511	RS1/16S0R0J
R 512	RS1/16S0R0J
R 513	RS1/16S102J
R 514	RS1/16S0R0J
R 515	RS1/16S0R0J
R 516	RS1/16S471J
R 517	RS1/16S0R0J
R 518	RS1/16S102J
R 519	RS1/16S102J
R 520	RS1/16S0R0J
R 521	RS1/16S0R0J
R 522	RS1/16S0R0J
R 523	RS1/16S0R0J
R 524	RS1/16S0R0J
R 525	RS1/16S221J
R 526	RS1/16S221J
R 527	RS1/16S221J
R 528	RS1/16S221J
R 530	RS1/16S102J
R 531	RS1/16S0R0J
R 532	RS1/16S0R0J
R 551	RS1/16S681J
R 552	RS1/16S331J
R 553	RS1/16S272J
R 554	RS1/16S681J
R 555	RS1/16S101J
R 601	RS1/16S102J
R 602	RS1/16S102J
R 603	RS1/16S102J
R 604	RS1/16S822J
R 605	RS1/16S222J
R 606	RS1/16S472J
R 607	RS1/16S472J
R 608	RAB4C222J
R 609	RS1/16S332J
R 610	RS1/16S332J
R 611	RS1/16S102J
R 612	RS1/16S102J
R 613	RS1/16S103J
R 614	RS1/16S223J
R 615	RS1/16S473J
R 616	RS1/16S472J
R 617	RS1/16S473J
R 618	RS1/16S472J
R 619	RS1/16S103J
R 620	RS1/16S104J

Circuit Symbol and No.	Part No.	Circuit Symbol and No.	Part No.
R 623	RS1/16S473J	R 697	RS1/16S223J
R 624	RS1/16S473J	R 700	RS1/16S473J
R 626	RS1/16S473J	R 701	RS1/16S102J
R 627	RS1/16S102J	R 702	RS1/16S473J
R 629	RS1/16S472J	R 703	RS1/16S103J
R 630	RS1/16S102J	R 704	RS1/16S103J
R 631 (RC model)	RS1/16S473J	R 705	RS1/16S104J
R 632	RS1/16S473J	R 706	RS1/16S102J
R 633	RAB4C102J	R 707	RS1/16S223J
R 634	RAB4C102J	R 708	RS1/16S473J
R 635	RS1/16S473J	R 709	RS1/16S473J
R 636	RS1/16S102J	R 710	RS1/16S102J
R 638	RS1/16S102J	R 711	RS1/16S473J
R 639	RAB4C102J	R 712	RS1/16S472J
R 640	RS1/16S473J	R 713	RS1/16S472J
R 641	RS1/16S102J	R 714	RS1/16S472J
R 642	RS1/16S102J	R 715	RS1/16S103J
R 643	RS1/16S472J	R 716	RS1/16S153J
R 644	RS1/16S103J	R 717	RS1/16S473J
R 648	RS1/16S101J	R 718	RS1/16S222J
R 652	RS1/16S221J	R 719	RS1/16S104J
R 653	RS1/16S681J	R 801	RS1/16S103J
R 654	RS1/16S473J	R 802	RS1/16S221J
R 655	RS1/16S102J	R 803	RS1/16S221J
R 656	RS1/16S473J	R 804	RS1/16S103J
R 657	RS1/16S102J	R 805	RS1/16S102J
R 658	RS1/16S473J	R 806	RS1/16S473J
R 659	RS1/16S473J	R 807	RS1/16S221J
R 660	RS1/16S104J	R 808	RS1/16S103J
R 661	RS1/16S104J	R 809	RS1/16S473J
R 662	RS1/16S473J	R 810	RS1/16S221J
R 663	RS1/16S473J	R 811	RS1/16S103J
R 665	RAB4C102J	R 812	RS1/16S473J
R 666	RS1/16S473J	R 813	RS1/16S223J
R 667	RS1/16S0R0J	R 814	RS1/16S1201D
R 668	RS1/16S473J	R 815	RS1/16S4701D
R 669	RS1/16S473J	R 816	RS1/16S8201D
R 671	RS1/16S473J	R 817	RS1/16S1001D
R 672	RS1/16S473J	R 819	RS1/16S220J
R 673	RS1/16S472J	R 820	RS1/16S1001D
R 674	RS1/16S681J	R 821	RS1/16S822J
R 675	RS1/16S681J	R 822	RS1/16S822J
R 676	RS1/16S104J	R 823	RS1/16S4701D
R 677	RS1/16S473J	R 824	RS1/16S2R2J
R 678	RS1/16S104J	R 825	RS1/16S2R2J
R 679	RAB4C681J	R 826	RS1/16S0R0J
R 680	RS1/16S102J	R 827	RS1/16S2R2J
R 681	RAB4C102J	R 828	RS1/16S2R2J
R 682	RS1/16S102J	R 829	RS1/16S223J
R 683	RS1/16S0R0J	R 830	RS1/16S223J
R 684	RS1/16S102J	R 831	RS1/16S4301D
R 685	RS1/16S681J	R 832	RS1/16S6801D
R 686	RS1/16S681J	R 833	RS1/16S0R0J
R 689	RS1/16S104J	R 834	RS1/16S3301D
R 690	RS1/16S104J	R 835	RS1/16S1500D
R 692	RS1/16S473J	R 836	RS1/16S3901D
R 693	RS1/16S223J	R 837	RS1/16S102J
R 694	RS1/16S472J	R 838 2.7kΩ	CCN1143
R 695	RS1/16S223J	R 839	RS1/16S331J
R 696	RS1/16S472J	R 840	RS1/16S331J

Circuit Symbol and No.		Part No.
R 841	2.7kΩ	CCN1143
R 842	2.7kΩ	CCN1143
R 843	2.7kΩ	CCN1143
R 844		RS1/16S100J
R 845		RS1/16S100J
R 846	10Ω	CCN1148
R 847	10Ω	CCN1148
R 848		RS1/16S472J
R 849	10Ω	CCN1148
R 850		RS1/16S181J
R 851		RS1/16S181J
R 852		RS1/16S332J
R 853		RS1/16S181J
R 854		RS1/16S181J
R 855		RS1/16S181J
R 856		RS1/16S181J
R 857		RS1/16S472J
R 858		RS1/16S102J
R 859		RS1/16S1202D
R 860		RS1/16S2701D
R 861		RS1/16S8201D
R 862		RS1/16S5600D
R 863		RS1/16S104J
R 864		RS1/16S391J
R 865		RS1/16S222J
R 866		RS1/16S472J
R 867		RS1/16S222J
R 868		RS1/16S472J
R 869		RS1/16S271J
R 870		RS1/16S103J
R 871		RS1/16S332J
R 872		RS1/16S271J
R 873		RS1/16S121J
R 874		RS1/16S103J
R 875		RS1/16S332J
R 876		RS1/16S121J
R 877		RS1/16S271J
R 878		RS1/16S103J
R 879		RS1/16S103J
R 880		RS1/16S471J
R 881		RS1/16S121J
R 882		RS1/16S103J
R 883		RS1/16S332J
R 884		RS1/16S820J
R 885		RS1/16S820J
R 886		RS1/16S103J
R 887		RS1/16S332J
R 888		RS1/16S103J
R 889		RS1/16S332J
R 890		RS1/16S330J
R 891		RS1/16S330J
R 892		RS1/16S330J
R 893		RS1/16S103J
R 894		RS1/16S103J
R 895		RS1/16S104J
R 896		RS1/16S104J
R 897		RS1/16S331J
R 898		RS1/16S473J
R 899		RS1/16S0R0J
R 901		RS1/10S301J

Circuit Symbol and No.	Part No.
R 902	RS1/10S301J
R 903	RS1/16S153J
R 905	RS1/16S102J
R 906	RS1/16S102J
R 907	RS1/16S102J
R 911	RS1/16S0R0J
R 912	RS1/16S0R0J
R 913	RS1/16S0R0J
R 914	RS1/16SS4R7J
R 915	RS1/16SS4R7J
R 916	RS1/16S4R7J
R 1401	RAB4CQ101J
R 1402	RAB4CQ101J
R 1403	RAB4CQ470J
R 1404	RAB4CQ470J
R 1405	RAB4CQ101J
R 1406	RS1/16S101J
R 1407	RS1/16S101J
R 1408	RS1/16S102J
R 1409	RS1/16S102J
R 1410	RS1/16S105J
R 1411	RS1/16S105J
R 1412	RS1/16S103J
R 1413	RS1/16S102J
R 1414	RS1/16S821J
R 1415	RS1/16S102J
R 1416	RAB4CQ101J
R 1417	RAB4CQ101J
R 1418	RAB4CQ470J
R 1419	RAB4CQ470J
R 1420	RS1/16S0R0J
R 1423	RS1/16S473J
R 1424	RS1/16S473J
R 1425	RAB4CQ101J
R 1426	RAB4CQ101J
R 1427	RAB4CQ470J
R 1428	RAB4CQ470J
R 1429	RAB4CQ101J
R 1430	RS1/16S101J
R 1431	RS1/16S101J
R 1432	RS1/16S471J
R 1433	RS1/16S471J
R 1434	RS1/16S473J
R 1435	RS1/16S471J
R 1436	RS1/16S473J
R 1439	RS1/16S102J
R 1440	RS1/16S821J
R 1441	RAB4CQ101J
R 1442	RAB4CQ101J
R 1443	RAB4CQ470J
R 1444	RAB4CQ470J
R 1445	RS1/16S821J
R 1446	RS1/16S471J
R 1449	RS1/16S821J
R 1450	RS1/16S102J
R 1451	RS1/16S124J
R 1452	RS1/16S473J
R 1453	RS1/16S0R0J
R 1454	RS1/16S101J
R 1455	RS1/16S473J

Circuit Symbol and No.	Part No.
R 1456	RAB4CQ102J
R 1460	RS1/16S102J
R 1461	RS1/16S102J
R 1462	RS1/16S471J
R 1463	RS1/16S102J
R 1464	RAB4CQ221J
R 1465	RS1/16S102J
R 1467	RS1/16S473J
R 1469	RS1/16S473J
R 1470	RS1/16S470J
R 1471	RS1/16S470J
R 1473	RS1/16S470J
R 1474	RS1/16S470J
R 1475	RS1/16S821J
R 1476	RS1/16S470J
R 1477	RS1/16S821J
R 1479	RS1/16S473J
R 1480	RS1/16S470J
R 1481	RS1/16S470J
R 1482	RS1/16S102J
R 1483	RS1/16S102J
R 1484	RS1/16S470J
R 1485	RS1/16S473J
R 1486	RS1/16S473J
R 1487	RAB4CQ102J
R 1488	RS1/16S222J
R 1497	RS1/16S0R0J
R 1501	RS1/16S473J
R 1502	RS1/16S473J
R 1503	RS1/16S473J
R 1504	RS1/16S104J
R 1505	RS1/16S273J
R 1506	RS1/16S563J
R 1507	RS1/16S151J
R 1508	RS1/16S151J
R 1510	RAB4CQ470J
R 1511	RAB4CQ470J
R 1512	RAB4CQ470J
R 1513	RAB4CQ101J
R 1514	RAB4CQ101J
R 1515	RAB4CQ101J
R 1516	RAB4CQ101J
R 1517	RAB4CQ101J
R 1518	RS1/16S0R0J
R 1519	RS1/16S101J
R 1520	RS1/16S0R0J
R 1521	RS1/16S680J
R 1522	RS1/16S105J
R 1524	RS1/16S101J
R 1526	RS1/16S220J
R 1527	RS1/16S473J
R 1528	RAB4CQ470J
R 1530	RS1/16S473J
R 1531	RS1/16S470J
R 1534	RS1/16S471J
R 1535	RS1/16S330J
R 1536	RS1/16S102J
R 1537	RS1/16S102J
R 1538	RS1/16S102J
R 1539	RS1/16S102J

Circuit Symbol and No.	Part No.
R 1540	RS1/16S473J
R 1543	RAB4CQ470J
R 1544	RS1/16S101J
R 1545	RS1/16S151J
R 1546	RS1/16S151J
R 1547	RAB4CQ470J
R 1549	RS1/16S473J
R 1550	RAB4CQ470J
R 1551	RS1/16S101J
R 1552	RS1/16S302J
R 1553	RAB4CQ470J
R 1554	RS1/16S101J
R 1555	RS1/16S470J
R 1556	RS1/16S470J
R 1557	RS1/16S471J
R 1558	RS1/16S470J
R 1559	RS1/16S470J
R 1560	RS1/16S471J
R 1561	RS1/16S470J
R 1562	RS1/16S470J
R 1563	RS1/16S473J
R 1564	RS1/16S470J
R 1565	RS1/16S473J
R 1566	RS1/16S473J
R 1567	RAB4CQ680J
R 1568	RS1/16S473J
R 1569	RS1/16S331J
R 1570	RS1/16S331J
R 1571	RS1/16S331J
R 1572	RS1/16S333J
R 1573	RS1/16S153J
R 1574	RS1/16S333J
R 1575	RS1/16S153J
R 1576	RS1/16S333J
R 1577	RS1/16S153J
R 1578	RAB4CQ680J
R 1579	RAB4CQ680J
R 1580	RS1/16S102J
R 1581	RS1/16S102J
R 1582	RS1/16S102J
R 1583	RS1/16S470J
R 1584	RS1/16S470J
R 1585	RS1/16S0R0J
R 1586	RS1/16S0R0J
R 1587	RS1/16S0R0J
R 1588	RS1/16S103J
R 1589	RS1/16S103J
R 1590	RS1/16S103J
R 1591	RS1/16S103J

CAPACITORS

C 103	CKSRYB104K16
C 104	CKSRYB104K16
C 106	CCSRCH150J50
C 107	CKSRYB104K16
C 108	CKSYB106K6R3
C 111	CKSRYB102K50
C 112	CKSRYB102K50
C 153	CKSYB106K6R3

Circuit Symbol and No.		Part No.
C 155		CKSRYB102K50
C 156		CKSYB475K10
C 157		CKSRYB103K50
C 158		CEVLW220M6R3
C 159		CEVLW101M10
C 160		CKSRYB102K50
C 201		CKSRYB105K6R3
C 202		CKSRYB105K6R3
C 203		CKSRYB105K6R3
C 204		CKSRYB105K6R3
C 205		CKSRYB224K10
C 206		CKSRYB224K10
C 207		CKSRYB105K6R3
C 208		CKSRYB105K6R3
C 209		CKSRYB105K6R3
C 210		CKSRYB105K6R3
C 213		CKSRYB102K50
C 214		CEVLW470M16
C 215		CKSRYB104K16
C 216		CKSYB475K10
C 217		CKSYB475K10
C 218		CKSYB475K10
C 219		CKSYB475K10
C 222		CKSYB475K10
C 223		CKSYB475K10
C 224		CKSYB475K10
C 225		CKSYB475K10
C 226		CCSRCH100D50
C 227		CCSRCH100D50
C 228		CKSRYB104K16
C 229		CCSRCH100D50
C 230		CCSRCH100D50
C 231		CCSRCH100D50
C 232		CCSRCH100D50
C 233		CKSRYB104K16
C 234		CKSRYB104K16
C 235		CKSRYB104K16
C 236		CEVLW100M16
C 237		CKSRYB224K10
C 238		CKSRYB105K10
C 239		CKSRYB105K10
C 240		CEVLW100M16
C 241		CKSRYB105K10
C 242		CKSRYB105K10
C 243		CKSRYB105K10
C 244		CKSRYB105K10
C 245	10µF	CCG1182
C 246		CEVLW101M10
C 247		CKSRYB105K10
C 248		CKSRYB105K10
C 249		CKSYB475K10
C 250		CEVLW330M25
C 251		CKSQYB225K10
C 252		CKSQYB225K10
C 253		CKSQYB225K10
C 254		CKSQYB225K10
C 255		CKSQYB225K10
C 256		CKSQYB225K10
C 257		CEVLW100M16
C 259		CKSRYB105K10
C 260		CEVLW330M25
C 261	10µF	CCG1182
C 262	10µF	CCG1182
C 263	10µF	CCG1182
C 264	10µF	CCG1182
C 265	10µF	CCG1182
C 266	10µF	CCG1182
C 267		CKSYB684K16
C 268		CEVLW330M25
C 269	10µF	CCG1138
C 270	1000µF/16V	CCH1428
C 272	10µF	CCG1182
C 273		CKSYB475K16
C 274		CKSYB475K16
C 275		CKSRYB222K50
C 276		CKSRYB222K50
C 277		CKSRYB222K50
C 278		CKSRYB222K50
C 279		CKSRYB222K50
C 280		CKSRYB222K50
C 281		CKSRYB473K50
C 282	10µF	CCG1182
C 285		CKSRYB104K16
C 303		CEVW101M16
C 304		CKSYB475K10
C 305		CKSYB475K16
C 306		CKSYB475K16
C 307		CCSRCH220J50
C 308		CCSRCH220J50
C 309		CEVLW100M16
C 310		CEVLW100M16
C 311		CKSRYB102K50
C 312		CKSRYB105K10
C 313		CEVLW470M16
C 403		CKSRYB105K6R3
C 405		CKSRYB105K6R3
C 407		CKSRYB104K16
C 408		CKSRYB105K6R3
C 409		CKSRYB105K6R3
C 411		CKSRYB104K16
C 412		CKSRYB104K16
C 414		CKSRYB104K16
C 416		CKSYB106K6R3
C 417		CKSYB106K6R3
C 418		CKSYB475K16
C 419		CEVLW100M16
C 420		CKSYB475K16
C 422		CEVLW100M16
C 424		CKSRYB104K16
C 426		CKSRYB104K16
C 428		CCSRCH6R0D50
C 430		CKSYB106K6R3
C 433		CKSYB106K6R3
C 434		CKSRYB104K16
C 435		CCSRCH6R0D50
C 436		CKSYB106K6R3
C 437		CKSRYB105K6R3
C 438		CKSRYB104K16
C 439		CKSRYB105K6R3
C 440		CKSRYB105K6R3

Circuit Symbol and No.		Part No.
C 441		CEVLW221M4
C 442		CEVLW221M4
C 443		CEVLW221M4
C 444		CKSRYB104K16
C 447		CKSRYB102K50
C 449		CKSRYB104K16
C 450		CKSQYB225K10
C 451		CKSYB106K6R3
C 452		CKSRYB104K16
C 453		CKSRYB105K6R3
C 454		CKSRYB102K50
C 455		CKSRYB104K16
C 456		CKSYB106K6R3
C 458		CCSRCH6R0D50
C 459		CKSYB106K6R3
C 460		CKSRYB105K6R3
C 462		CCSRCH6R0D50
C 464	47µF	CCG1181
C 465	47µF	CCG1181
C 466		CEVLW101M10
C 467		CKSRYB105K6R3
C 468		CKSYB106K6R3
C 469		CEVLW100M16
C 470		CKSRYB104K16
C 471		CKSRYB104K16
C 486		CKSRYB102K50
C 487		CKSRYB104K16
C 490		CEVLW101M10
C 551		CKSRYB105K6R3
C 555		CEVLW101M10
C 604		CKSRYB103K50
C 605		CKSRYB103K50
C 606		CEVLW2R2M50
C 607		CKSRYB105K6R3
C 608		CKSRYB105K6R3
C 609		CKSRYB104K16
C 610		CCSRCH101J50
C 612		CCSRCH7R0D50
C 613		CCSRCH7R0D50
C 614		CKSRYB105K6R3
C 615		CKSRYB104K25
C 616		CKSRYB104K25
C 617		CKSRYB104K25
C 619		CCSRCH100D50
C 620		CCSRCH100D50
C 621		CCSRCH680J50
C 701		CKSRYB105K10
C 702		CKSRYB104K16
C 703		CKSRYB104K16
C 704		CKSRYB103K50
C 705		CKSQYB104K16
C 706		CKSRYB104K16
C 708		CKSRYB104K16
C 801	0.22µF	CCL1058
C 802		CKSYB106K6R3
C 803		CKSRYB103K50
C 804		CCSRCH102J50
C 805		CCSRCH102J50
C 806		CKSRYB103K50
C 807		CCSRCH102J50

Circuit Symbol and No.		Part No.
C 808		CKSRYB103K50
C 809		CKSRYB104K16
C 811		CCSRCH470J50
C 817		CCSRCH471J50
C 818		CCSRCH390J50
C 819		CKSRYB222K50
C 821		CKSRYB472K50
C 822	2200µF/16V	CCH1405
C 823		CCSRCH181J50
C 824		CCSRCH681J50
C 825		CKSRYB103K50
C 826		CKSRYB182K50
C 827		CKSRYB103K50
C 829		CKSRYB104K16
C 830		CCSRCH100D50
C 831		CCSRCH470J50
C 832		CCSRCH102J50
C 833		CCSRCH102J50
C 835		CKSSYB104K10
C 836		CKSRYB104K16
C 837		CKSSYB104K10
C 838		CKSQYB105K16
C 839		CKSQYB105K16
C 840		CSZS4R7M16
C 841		CSZS4R7M16
C 842		CKSRYB104K16
C 843		CKSRYB104K16
C 844		CKSRYB102K50
C 845	10µF	CCG1138
C 846		CEHAZL471M16
C 847	10µF	CCG1183
C 848	10µF	CCG1183
C 849	47µF	CCG1181
C 850	10µF	CCG1138
C 851	47µF	CCG1181
C 853		CKSRYB105K10
C 854		CKSRYB105K10
C 855	2200µF/16V	CCH1405
C 856		CKSRYB105K10
C 858		CKSYB225K16
C 861		CKSRYB474K10
C 862		CEVLW470M16
C 863		CKSRYB104K16
C 864		CCSRCH102J50
C 865		CEVLW470M16
C 866		CKSRYB103K50
C 867		CKSRYB103K50
C 868		CEVLW100M16
C 869	10µF	CCG1182
C 870		CEVLW101M10
C 871		CKSRYB104K16
C 872		CKSRYB103K50
C 873	0.1µF	CCL1059
C 874		CKSRYB103K50
C 875		CKSRYB103K50
C 876		CEVW101M16
C 877		CEVW101M16
C 878		CKSRYB104K16
C 881		CKSRYB103K50
C 882		CKSRYB103K50

Circuit Symbol and No.		Part No.
C 883		CKSRYB103K50
C 884		CEVLW100M16
C 885		CKSRYB103K50
C 886	1000µF/16V	CCH1428
C 887	10µF	CCG1138
C 890		CCSRCH151J50
C 891		CCSRCH151J50
C 892		CCSRCH151J50
C 893		CKSRYB105K6R3
C 894		CKSRYB103K50
C 895		CKSRYB105K6R3
C 901		CKSRYB104K16
C 902	100µF/16V	CCH1228
C 903	100µF/16V	CCH1228
C 904	1000µF/16V	CCH1428
C 1401		CKSRYB102K50
C 1402		CKSRYB102K50
C 1403		CKSRYB102K50
C 1404		CKSRYB102K50
C 1405		CKSRYB104K16
C 1406		CKSRYB104K16
C 1407		CSZSC101M10
C 1408		CKSRYB104K16
C 1409		CKSRYB104K16
C 1410		CKSRYB104K16
C 1411		CKSRYB104K16
C 1412		CKSRYB104K16
C 1413		CKSRYB104K16
C 1414		CSZSC101M10
C 1415		CKSRYB104K16
C 1416		CKSRYB105K6R3
C 1417		CKSRYB104K16
C 1418		CKSRYB104K16
C 1419		CKSRYB104K16
C 1420		CKSRYB104K16
C 1421		CKSRYB104K16
C 1422		CKSRYB103K50
C 1424		CKSRYB104K16
C 1425		CSZSC101M10
C 1426		CKSRYB103K50
C 1427		CKSRYB104K16
C 1428		CKSRYB104K16
C 1429		CKSRYB104K16
C 1430		CKSRYB104K16
C 1431		CKSRYB104K16
C 1432		CKSRYB104K16
C 1433		CKSRYB105K6R3
C 1434		CKSRYB104K16
C 1436		CSZSC101M10
C 1437		CKSRYB105K6R3
C 1438		CKSRYB105K6R3
C 1439		CKSRYB105K6R3
C 1440		CKSRYB105K6R3
C 1441		CKSRYB105K6R3
C 1442		CSZSC101M10
C 1443		CKSRYB104K16
C 1446		CKSRYB105K6R3
C 1447		CKSRYB105K6R3
C 1448		CKSRYB105K6R3
C 1449		CKSRYB105K6R3

Circuit Symbol and No.		Part No.
C 1450		CKSRYB105K6R3
C 1451		CKSRYB105K6R3
C 1452		CKSRYB105K6R3
C 1453		CCSRCH221J50
C 1454		CCSRCH220J50
C 1455		CCSRCH471J50
C 1456		CKSRYB105K6R3
C 1457		CKSRYB105K6R3
C 1459		CCSRCH471J50
C 1460		CKSRYB105K6R3
C 1463		CKSRYB105K6R3
C 1464		CKSRYB105K6R3
C 1467		CKSYB475K10
C 1468		CKSRYB104K16
C 1469		CKSRYB104K16
C 1470		CKSRYB105K6R3
C 1471		CKSYB475K10
C 1472		CKSRYB104K16
C 1473		CKSYB475K10
C 1474		CKSRYB105K6R3
C 1475		CKSRYB105K6R3
C 1477		CKSRYB105K6R3
C 1478		CKSRYB105K6R3
C 1479		CKSRYB105K6R3
C 1480		CKSRYB105K6R3
C 1481		CKSYB106K6R3
C 1482		CKSYB106K6R3
C 1483		CKSYB106K6R3
C 1484		CKSYB106K6R3
C 1485		CKSYB106K6R3
C 1486		CKSYB106K6R3

C

Unit Number:CWX2883
Unit Name:DVD Core Unit(MS-3V1)

MISCELLANEOUS

IC 1001	IC	S-L2980A50MC-C7J
IC 1002	IC	R1130H501B
IC 1003	IC	LTC3411EMS
IC 1051	IC	PE5401A
IC 1201	IC	AN8471SAT1
IC 1231	IC	TC7SZ125FU
IC 1251	IC	BA5985FM
IC 1501	IC	MN35104UB
IC 1570	IC	K4S283232E-TC75
IC 1601	IC	PD6480B
IC 1602	IC	TC7SH86FU
IC 1651	IC	M5M5V216ATP-70HI
IC 1652	IC	TC7SZ126FU
IC 1671	IC	TC74LCX16373AFT
IC 1672	IC	TC7SZ08FU
IC 1801	IC	SM8707LV
IC 1802	IC	TC7WH157FU
IC 1851	IC	PCM1742KE
IC 1852	IC	NJM2140R
IC 1853	IC	NJM2100V
Q 1002	Transistor	DTC114EU
Q 1101	Transistor	2SB1260

Circuit Symbol and No.		Part No.
Q 1102	Transistor	2SB1260
Q 1103	Transistor	DTC114EU
Q 1104	Transistor	2SA1576A
Q 1105	Transistor	2SC4081
Q 1106	Transistor	2SC4081
Q 1107	Transistor	2SC4081
Q 1551	Transistor	2SA1576
D 1001	Diode	1SR154-400
D 1101	Diode	1SS355
D 1102	Diode	1SS355
D 1241	Chip LED	CL205IRXTU
L 1001	Inductor	CTF1623
L 1002	Inductor	CTF1624
L 1003	Inductor	CTF1558
L 1004	Inductor	CTF1558
L 1051	Inductor	CTF1473
L 1101	Inductor	CTF1305
L 1501	Inductor	CTF1378
L 1502	Inductor	CTF1487
L 1503	Inductor	CTF1488
L 1554	Inductor	CTF1473
L 1555	Inductor	CTF1473
L 1556	Inductor	CTF1400
L 1557	Inductor	CTF1395
L 1558	Inductor	CTF1473
L 1561	Inductor	CTF1473
L 1601	Inductor	CTF1464
L 1651	Inductor	CTF1464
L 1671	Inductor	CTF1473
L 1801	Inductor	CTF1558
L 1802	Inductor	CTF1558
L 1803	Inductor	CTF1464
L 1804	Inductor	CTF1468
L 1851	Inductor	CTF1464
L 1852	Inductor	CTF1473
L 1901	Inductor	CTF1487
L 1902	Inductor	CTF1558
L 1903	Inductor	CTF1558
L 1904	Inductor	CTF1468
L 1905	Inductor	CTF1468
X 1051	Resonator 4.91MHz	CSS1668
X 1801	Resonator 27.0000MHz	CSS1661
VR1551	Semi-fixed 10kΩ(B)	CCP1448
EF1801		DTL1106
EF1802		DTL1106
EF1803		DTL1106
EF1901		DTL1106
EF1902		DTL1106
EF1903		DTL1106
EF1904		DTL1106
EF1905		DTF1106

RESISTORS

Circuit Symbol and No.	Part No.
R 1001	RS1/10S0R0J
R 1003	RS1/16SS1003D
R 1004	RS1/10S0R0J
R 1005	RS1/16SS1501D
R 1006	RS1/16SS8202D
R 1007	RS1/16SS1502D
R 1008	RS1/16SS101J
R 1010	RS1/16SS105J
R 1011	RS1/16SS105J
R 1013	RS1/16SS103J
R 1014	RS1/16SS1203D
R 1015	RS1/16SS2402D
R 1016	RS1/16SS0R0J
R 1017	RS1/16SS0R0J
R 1018	RS1/16SS105J
R 1021	RS1/16SS122J
R 1051	RS1/16SS104J
R 1052	RS1/16SS104J
R 1053	RS1/16SS104J
R 1054	RS1/16SS104J
R 1055	RS1/16SS222J
R 1057	RS1/16SS104J
R 1058	RS1/16SS0R0J
R 1059	RS1/16SS104J
R 1060	RS1/16SS104J
R 1061	RS1/16SS221J
R 1062	RS1/16SS104J
R 1063	RS1/16SS104J
R 1064	RS1/16SS104J
R 1065	RS1/16SS104J
R 1066	RS1/16SS104J
R 1067	RS1/16SS104J
R 1068	RS1/16SS221J
R 1069	RS1/16SS221J
R 1070	RS1/16SS221J
R 1071	RS1/16SS221J
R 1072	RS1/16SS104J
R 1073	RS1/16SS104J
R 1074	RS1/16SS104J
R 1075	RS1/16SS472J
R 1076	RS1/16SS104J
R 1080	RS1/16SS0R0J
R 1081	RS1/16SS221J
R 1082	RS1/16SS473J
R 1083	RS1/16S153J
R 1084	RS1/16SS104J
R 1085	RS1/16S823J
R 1087	RS1/16S104J
R 1088	RS1/16SS104J
R 1089	RS1/16SS104J
R 1090	RAB4CQ104J
R 1101	RS1/16S6R8J
R 1102	RS1/16SS3R9J
R 1103	RS1/16SS3R9J
R 1104	RS1/16SS3R9J
R 1105	RS1/16SS3R9J
R 1106	RS1/16S6R8J
R 1107	RS1/16SS3R9J
R 1108	RS1/16SS3R9J
R 1109	RS1/16SS3R9J
R 1110	RS1/16SS3R9J
R 1111	RS1/16SS272J
R 1112	RS1/16SS472J
R 1113	RS1/16SS102J
R 1114	RS1/16SS221J
R 1115	RS1/16SS221J

Circuit Symbol and No.		Part No.
R 1116		RS1/16SS331J
R 1117		RS1/16SS221J
R 1118		RS1/16SS0R0J
R 1119		RS1/16SS0R0J
R 1120		RS1/16SS0R0J
R 1121		RS1/16SS0R0J
R 1128		RS1/16S0R0J
R 1129		RS1/16S0R0J
R 1130		RS1/16S0R0J
R 1131		RS1/16S0R0J
R 1201		RS1/16SS181J
R 1202		RS1/16SS181J
R 1203		RS1/16SS513J
R 1204		RS1/16SS221J
R 1206		RS1/16SS513J
R 1207		RS1/16S0R0J
R 1208		RS1/16S0R0J
R 1211		RS1/16SS1R0J
R 1212		RS1/16SS1R0J
R 1213		RS1/16SS1R0J
R 1214		RS1/16SS1R0J
R 1215		RS1/16SS1R0J
R 1216		RS1/16SS1R0J
R 1231		RS1/16SS822J
R 1232		RS1/16SS822J
R 1233		RS1/16SS822J
R 1234		RS1/16SS822J
R 1235		RS1/16SS563J
R 1236		RS1/16SS243J
R 1237		RS1/16SS683J
R 1238		RS1/16SS243J
R 1240		RS1/16S471J
R 1241		RS1/16S391J
R 1246		RS1/16SS104J
R 1248		RS1/16SS0R0J
R 1251		RS1/16SS221J
R 1252		RS1/16SS221J
R 1253		RS1/16SS393J
R 1254		RS1/16SS223J
R 1256		RS1/16SS102J
R 1257		RS1/16SS0R0J
R 1258		RS1/16SS393J
R 1259		RS1/16SS393J
R 1260		RS1/16SS393J
R 1261		RS1/16SS393J
R 1262		RS1/16SS221J
R 1263		RS1/16S0R0J
R 1269		RS1/16SS102J
R 1270		RS1/16SS102J
R 1501		RS1/16SS0R0J
R 1502		RS1/16SS0R0J
R 1503		RAB4CQ101J
R 1504		RS1/16SS0R0J
R 1505		RS1/16SS0R0J
R 1506		RAB4CQ101J
R 1507		RS1/16SS0R0J
R 1508		RAB4CQ101J
R 1509		RS1/16SS0R0J
R 1511		RAB4CQ101J
R 1512		RS1/16SS0R0J
R 1513		RS1/16SS473J
R 1514		RS1/16SS104J
R 1515		RS1/16SS222J
R 1518		RS1/16SS104J
R 1519		RS1/16SS104J
R 1522		RS1/16SS103J
R 1523		RS1/16SS104J
R 1525		RS1/16SS102J
R 1530		RS1/16SS104J
R 1531		RS1/16S221J
R 1532		RS1/16SS104J
R 1536		RS1/16SS104J
R 1537		RS1/16SS104J
R 1540		RS1/16SS221J
R 1541		RS1/16SS473J
R 1543		RS1/16SS104J
R 1544		RS1/16SS102J
R 1545		RS1/16SS102J
R 1546		RS1/16SS104J
R 1547		RS1/16SS330J
R 1548		RS1/16SS104J
R 1551	Inductor	CTF1387
R 1552		RS1/16S101J
R 1555		RS1/16S101J
R 1556		RS1/16S101J
R 1558		RS1/16SS750J
R 1561		RS1/16SS153J
R 1562		RS1/16SS471J
R 1563		RS1/16SS471J
R 1565		RS1/16S68R0D
R 1566		RS1/16S4R7J
R 1567		RS1/16SS273J
R 1568		RS1/16SS183J
R 1569		RS1/16SS153J
R 1571		RAB4CQ101J
R 1572		RAB4CQ101J
R 1573		RAB4CQ101J
R 1574		RAB4CQ101J
R 1575		RS1/16SS560J
R 1576		RS1/16SS560J
R 1577		RAB4CQ560J
R 1578		RAB4CQ560J
R 1579		RS1/16SS220J
R 1580		RAB4CQ560J
R 1581		RS1/16SS560J
R 1582		RS1/16SS560J
R 1583		RS1/16SS560J
R 1584		RAB4CQ560J
R 1585		RS1/16SS560J
R 1586		RS1/16SS560J
R 1587		RAB4CQ101J
R 1588		RAB4CQ101J
R 1589		RAB4CQ101J
R 1590		RAB4CQ101J
R 1593		RS1/16SS104J
R 1594		RS1/16S0R0J
R 1599		RS1/16S221J
R 1604		RS1/16SS0R0J
R 1608		RS1/16SS104J
R 1613		RS1/16SS0R0J

Circuit Symbol and No.	Part No.
R 1652	RS1/16SS104J
R 1653	RS1/16SS510J
R 1671	RAB4CQ101J
R 1672	RAB4CQ101J
R 1673	RAB4CQ101J
R 1674	RAB4CQ101J
R 1675	RS1/16SS331J
R 1701	RS1/16SS103J
R 1702	RS1/16SS103J
R 1703	RS1/16SS0R0J
R 1704	RS1/16SS105J
R 1705	RN1/16SE1002D
R 1706	RS1/16SS222J
R 1708	RS1/16SS223J
R 1709	RS1/16S1502D
R 1710	RS1/16SS102J
R 1711	RS1/16SS683J
R 1712	RS1/16SS103J
R 1713	RS1/16SS103J
R 1714	RS1/16SS0R0J
R 1715	RS1/16SS0R0J
R 1716	RS1/16SS0R0J
R 1717	RS1/16SS0R0J
R 1718	RS1/16SS103J
R 1719	RS1/16SS103J
R 1720	RS1/16SS103J
R 1721	RS1/16SS103J
R 1723	RN1/16SE3901D
R 1724	RS1/16SS0R0J
R 1729	RAB4CQ220J
R 1730	RAB4CQ220J
R 1801	RS1/16S0R0J
R 1802	RS1/16S151J
R 1803	RS1/16S151J
R 1804	RS1/16S221J
R 1805	RS1/16S271J
R 1806	RS1/16SS104J
R 1807	RS1/16S560J
R 1809	RS1/16SS0R0J
R 1821	RS1/16SS222J
R 1823	RS1/16SS101J
R 1851	RS1/16SS0R0J
R 1856	RS1/16SS102J
R 1857	RS1/16SS102J
R 1858	RS1/16SS222J
R 1859	RS1/16SS222J
R 1860	RS1/16SS472J
R 1861	RS1/16SS472J
R 1862	RS1/16SS472J
R 1863	RS1/16SS472J
R 1864	RS1/16SS103J
R 1865	RS1/16SS103J
R 1866	RS1/16SS472J
R 1867	RS1/16SS472J
R 1868	RS1/16SS821J
R 1869	RS1/16SS821J
R 1870	RS1/16SS104J
R 1871	RS1/16SS104J
R 1872	RS1/16SS0R0J
R 1873	RS1/16SS0R0J

Circuit Symbol and No.	Part No.
R 1874	RS1/16SS0R0J
R 1876	RS1/16SS0R0J
R 1877	RS1/16SS0R0J
R 1885	RS1/16SS0R0J
R 1897	RS1/16SS0R0J
R 1899	RS1/16SS0R0J
R 1901	RS1/16SS221J
R 1903	RS1/16SS221J
R 1908	RS1/16SS102J
R 1913	RS1/16S0R0J
R 1922	RS1/16SS0R0J
R 1923	RS1/16SS221J
R 1925	RS1/16S0R0J
R 1927	RS1/16SS0R0J
R 1928	RS1/16SS221J
R 1954	RS1/16SS221J
R 1955	RS1/16SS221J
R 1961	RS1/16S0R0J

CAPACITORS

C 1001		CKSRYB474K16
C 1002		CKSRYB104K25
C 1003		CKSRYB104K25
C 1004		CKSRYB104K25
C 1005		CKSRYB105K10
C 1006		CKSRYB104K25
C 1007	22μF	CCG1178
C 1008	22μF	CCG1178
C 1009		CCSSCH220J50
C 1010		CKSSYB102K16
C 1012	22μF	CCG1178
C 1013	22μF	CCG1178
C 1016		CKSRYB104K25
C 1051		CKSYB106K6R3
C 1052		CKSSYB104K10
C 1053		CKSSYB104K10
C 1054		CKSSYB103K16
C 1055		CKSSYB103K16
C 1058		CKSSYB471K50
C 1059		CKSSYB104K10
C 1060		CKSRYB105K10
C 1101		CSZSR220M16
C 1102		CSZSR101M6R3
C 1103		CKSSYB104K10
C 1104		CKSSYB103K16
C 1105		CSZSR101M6R3
C 1106		CKSSYB104K10
C 1107		CKSSYB103K16
C 1108		CKSRYB104K25
C 1109		CKSSYB473K10
C 1110		CKSSYB473K10
C 1111		CKSSYB103K16
C 1112		CKSRYB105K10
C 1113		CKSRYB105K10
C 1114		CKSSYB103K16
C 1115		CSZSR220M16
C 1201		CEV101M16
C 1202		CKSRYB104K25
C 1203		CSZSR220M16
C 1204		CKSRYB104K25

Circuit Symbol and No.	Part No.
C 1205	CKSRYB104K25
C 1206	CKSRYB104K25
C 1207	CSZSR220M16
C 1231	CKSRYB104K25
C 1232	CKSSYB104K10
C 1251	CKSRYB104K25
C 1254	CKSRYB103K50
C 1255	CKSRYB103K50
C 1256	CEV101M16
C 1257	CKSRYB104K25
C 1258	CCSSCH470J50
C 1259	CCSSCH5R0C50
C 1501	CSZSR470M10
C 1502	CSZSR101M6R3
C 1503	CSZSR101M6R3
C 1504	CKSSYB104K10
C 1505	CKSSYB104K10
C 1506	CKSSYB104K10
C 1507	CKSSYB104K10
C 1508	CKSSYB104K10
C 1509	CKSSYB104K10
C 1510	CKSSYB104K10
C 1511	CKSSYB104K10
C 1512	CKSSYB104K10
C 1513	CKSSYB104K10
C 1514	CKSSYB104K10
C 1515	CKSSYB104K10
C 1516	CKSSYB104K10
C 1517	CKSSYB104K10
C 1518	CKSSYB104K10
C 1519	CKSSYB104K10
C 1520	CKSSYB104K10
C 1521	CKSSYB104K10
C 1522	CKSSYB104K10
C 1523	CKSSYB104K10
C 1524	CKSSYB104K10
C 1525	CKSSYB104K10
C 1526	CKSSYB104K10
C 1527	CKSSYB104K10
C 1528	CKSSYB104K10
C 1529	CKSSYB104K10
C 1530	CKSSYB104K10
C 1531	CKSSYB471K50
C 1532	CKSSYB103K16
C 1533	CKSSYB103K16
C 1552	CKSSYB104K10
C 1553	CKSRYB104K25
C 1554	CKSSYB104K10
C 1555	CKSRYB105K10
C 1556	CSZSR470M10
C 1557	CKSSYB104K10
C 1558	CSZS4R7M16
C 1559	CKSRYB105K10
C 1561	CKSSYB102K50
C 1570	CSZSR470M10
C 1571	CKSSYB104K10
C 1572	CKSSYB104K10
C 1573	CKSSYB104K10
C 1574	CKSSYB104K10
C 1575	CKSSYB104K10

Circuit Symbol and No.	Part No.
C 1576	CKSSYB104K10
C 1577	CKSSYB104K10
C 1578	CKSSYB104K10
C 1579	CKSSYB104K10
C 1580	CKSSYB104K10
C 1581	CKSSYB104K10
C 1582	CKSSYB104K10
C 1583	CSZSR470M10
C 1601	CSZSR470M10
C 1603	CKSSYB104K10
C 1651	CSZSR470M10
C 1653	CKSSYB104K10
C 1654	CKSRYB104K25
C 1655	CKSSYB104K10
C 1671	CKSSYB104K10
C 1672	CKSSYB104K10
C 1673	CKSSYB104K10
C 1674	CKSSYB104K10
C 1675	CKSRYB104K25
C 1676	CKSYB106K6R3
C 1701	CKSRYB104K25
C 1702	CKSRYB104K25
C 1703	CKSSYB104K10
C 1704	CKSSYB103K16
C 1705	CKSSYB103K16
C 1706	CKSSYB104K10
C 1707	CKSSYB104K10
C 1708	CKSSYB103K16
C 1709	CCSRCH221J50
C 1710	CKSSYB152K50
C 1711	CKSRYB105K10
C 1712	CKSRYB105K10
C 1713	CKSRYB105K10
C 1715	CKSSYB104K10
C 1716	CKSSYB104K10
C 1717	CKSSYB104K10
C 1718	CKSSYB104K10
C 1719	CKSSYB562K25
C 1720	CCSSCH101J50
C 1721	CCSSCH470J50
C 1722	CKSSYB103K16
C 1723	CKSSYB104K10
C 1724	CKSSYB104K10
C 1725	CKSSYB104K10
C 1726	CCSSCH330J50
C 1727	CKSSYB333K16
C 1728	CKSSYB104K10
C 1733	CKSSYB103K16
C 1801	CKSSYB104K10
C 1802	CKSSYB104K10
C 1804	CKSSYB104K10
C 1805	CCSSCH100D50
C 1809	CCSSCJ3R0C50
C 1810	CCSSCK2R0C50
C 1811	CKSSYB104K10
C 1851	CKSSYB104K10
C 1852	CKSSYB104K10
C 1853	CKSYB106K6R3
C 1854	CKSYB106K6R3
C 1855	CKSRYB104K25

Circuit Symbol and No.		Part No.
C 1856		CKSRYB104K25
C 1857		CCSRCH471J50
C 1858		CCSRCH471J50
C 1859		CCSRCH471J50
C 1860		CCSRCH471J50
C 1861		CKSQYB225K10
C 1862		CKSSYB471K50
C 1863		CKSSYB471K50
C 1864		CKSYB475K10
C 1865		CKSYB475K10
C 1870		CKSSYB104K10
C 1903		CKSRYB102K50

D

Unit Number:CWX3024
Unit Name:Compound Unit(A)

Q 1299	Photo-taransistor	CPT231SCTD
S 1201	Spring Switch(12cm)	CSN1069
S 1202	Spring Switch(8cm)	CSN1069
S 1203	Spring Switch(DISC SENS)	CSN1069
S 1204	Spring Switch(DISC SENS)	CSN1070
S 1205	Spring Switch(8cm)	CSN1070
R 1298		RS1/16S0R0J
R 1299		RS1/16S0R0J

E

Unit Number:CWX2753
Unit Name:Compound Unit(B)

S 1206	Switch(CLAMP)	CSN1051

G

Unit Number:CWM9203(UC,RC,RD model)
Unit Number:CWM9202(EW model)
Unit Name:Tuner Unit

MISCELLANEOUS

IC 1402	IC	BA00ASFP
Q 1401	Transistor(EW model)	IMH2A
Q 1402	Transistor(EW model)	IMH2A
Q 1403	Transistor	2SC4081
Q 1404	Transistor	2SD2375
D 1401	Diode	UDZ6R8(B)
D 1402	Diode	UDZS3R9(B)
ZNR1401	Surge Protector	RCCA-201Q31UA-PI
L 1401	Inductor	LCTA4R7J2520
L 1404	Inductor	CTF1295
L 1406	Inductor	LCTA1R0J2520
L 1407	Inductor	LCTA1R0J3225
L 1408	Inductor	LCTA680J4532
FU1401	Fuse 5A	CEK1289
FU1402	Fuse 5A	CEK1289

RESISTORS

Circuit Symbol and No.		Part No.
R 1401	(EW model)	RAB4C223J
R 1402		RAB4C471J
R 1403		RAB4C471J
R 1404		RS1/16S0R0J
R 1405		RS1/16S103J
R 1406		RS1/16S103J
R 1407		RS1/16S103J
R 1412		RS1/16S1001D
R 1413		RS1/16S2201D
R 1414		RS1/16S1202D
R 1415		RS1/16S102J
R 1416		RS1/16S102J
R 1417		RS1/16S101J
R 1418		RS1/16S820J
R 1419		RS1/16S820J

CAPACITORS

C 1403	100µF/6.3V	CCH1496
C 1404		CKSYB475K10
C 1405		CKSRYB103K50
C 1406	56µF/10V	CCH1497
C 1408		CKSRYB103K50
C 1414		CCSRCH221J50
C 1415		CCSRCH221J50
C 1416		CCSRCH221J50
C 1417		CCSRCH221J50
C 1418		CCSRCH221J50
C 1419		CKSRYB104K16
C 1421		CKSRYB474K10
C 1422		CKSRYB474K10
C 1425		CEVW220M10
C 1426		CEVW101M16
C 1427		CEVW100M10
C 1428		CEVW101M10
C 1429		CKSYB474K16

Monitor Unit
Consists of
Inverter PCB
Monitor PCB
Upper PCB
Sense PCB

H I J K

Unit Number:CWM9148(UC model)
Unit Number:CWM9147(EW model)
Unit Number:CWM9149(RC,RD model)
Unit Name:Monitor Unit

MISCELLANEOUS

IC 4001	IC	TC90A64AF-P
IC 4061	L-MOS(NOR)	TC7SZ02FU
IC 4063	IC	TC7SZ32FU
IC 4064	IC	TC7SZ08FU
IC 4065	IC	TC7SZ08FU
IC 4141	IC(UC,EW model)	TC7SH08FU
IC 4142	IC(UC,EW model)	TK15404AMI
IC 4151	IC	NJM2138V

Circuit Symbol and No.		Part No.
IC 4181	IC	NJM082BV
IC 4311	IC	NJM062V
IC 4451	IC	TC7SET08FU
IC 4691	IC	S-93C46BR0I-J8T1
IC 4701	IC(UC model)	PD6340A
IC 4701	IC(EW,RC,RD model)	PD6347A
IC 4731	IC	TC7SET08FU
IC 4732	IC	TC7SH08FU
IC 4841	IC	R1130H251B
IC 4851	IC	LT1376CS8
IC 4861	IC	MAX1748EUE
IC 5001	IC	TA78L05F
IC 5002	IC	TC7SET08FU
IC 5003	IC	OZ961IS
IC 5004	FET	SI6544DQ
IC 5005	FET	SI6544DQ
Q 4002	Transistor	2SC4617
Q 4061	Transistor	2SC4617
Q 4062	Transistor	2SC4617
Q 4063	Transistor	2SC4617
Q 4101	Transistor	2SC4617
Q 4102	Transistor	2SA1774
Q 4103	Transistor	2SC4617
Q 4111	Transistor(UC,EW model)	2SC4617
Q 4112	Transistor(UC,EW model)	2SA1774
Q 4113	Transistor(UC,EW model)	2SC4617
Q 4121	Transistor(UC,EW model)	2SC4617
Q 4122	Transistor(UC,EW model)	2SA1774
Q 4123	Transistor(UC,EW model)	2SC4617
Q 4131	Transistor(UC,EW model)	2SC4617
Q 4132	Transistor(UC,EW model)	2SA1774
Q 4133	Transistor(UC,EW model)	2SC4617
Q 4151	Transistor	UMZ1N
Q 4152	Transistor	UMZ1N
Q 4153	Transistor	UMZ1N
Q 4154	Transistor	UMZ1N
Q 4155	Transistor	UMZ1N
Q 4156	Transistor	UMZ1N
Q 4182	Transistor	UMX2N
Q 4183	Transistor	UMT2N
Q 4831	Transistor	2SB1260
Q 4832	Transistor	DTC114EK
Q 4835	Transistor	2SD1664
Q 5001	Transistor	2SC4617
Q 5002	Transistor	2SC4617
Q 5003	Transistor	2SA1774
D 4061	Diode	UDZS5R6(B)
D 4062	Diode	UDZS5R6(B)
D 4063	Diode	UDZS5R6(B)
D 4311		AM-30-21
D 4321	LED	NSSW440-9159
D 4322	LED	NSSW440-9159
D 4331	LED(EW model)	CL-195SR-CD
D 4332	LED(EW model)	CL-195SR-CD
D 4333	LED(EW model)	CL-195SR-CD
D 4334	LED(EW model)	CL-195SR-CD
D 4335	LED(EW model)	CL-195SR-CD
D 4336	LED(EW model)	CL-195SR-CD
D 4337	LED(EW model)	CL-195SR-CD
D 4338	LED(EW model)	CL-195SR-CD
D 4351	LED	CL-195PG-CD
D 4352	LED	CL-195PG-CD
D 4353	LED	CL-195PG-CD
D 4354	LED	CL-195PG-CD
D 4355	LED	CL-195PG-CD
D 4356	LED	CL-195PG-CD
D 4357	LED	CL-195PG-CD
D 4358	LED	CL-195PG-CD
D 4401	Diode	UDZS5R6(B)
D 4402	Diode	UDZS5R6(B)
D 4403	Diode	UDZS5R6(B)
D 4404	Diode	UDZS5R6(B)
D 4481	Diode	UDZS3R9(B)
D 4482	Diode	UDZS3R9(B)
D 4701	Diode	HZU5R6(B2)
D 4702	Diode	HZU5R6(B2)
D 4703	Diode	HZU5R6(B2)
D 4704	Diode	HZU5R6(B2)
D 4705	Diode	HZU5R6(B2)
D 4706	Diode	HZU5R6(B2)
D 4835	Diode	HZU5R6(B2)
D 4851	Diode	RB500V-40
D 4852	Diode	U2FWJ44N
D 4861	Diode	RB160M-30
D 4862	Diode	RB500V-40
D 4863	Diode	RB500V-40
D 4864	Diode	RB500V-40
D 4865	Diode	RB500V-40
D 4866	Diode	RB500V-40
D 4867	Diode	RB500V-40
D 4868	Diode	RB500V-40
D 4869	Diode	RB500V-40
D 5001	Diode	UDZS6R2(B)
D 5002	Diode	1SS355
D 5003	LED	CL-195PG-CD
D 5004	LED(EW model)	CL-195SR-CD
D 5005	LED	CL-195PG-CD
D 5006	LED(EW model)	CL-195SR-CD
D 5007	LED	CL-195PG-CD
D 5008	LED(EW model)	CL-195SR-CD
D 5009	Diode	RB751V40
D 5010	Diode	HZU6R2(B3)
D 5011	Diode	HZU6R2(B3)
D 5012	Diode	HZU6R2(B3)
D 5013	Diode	MA143
D 5014	Diode	MA143
L 4001	Inductor	CTF1306
L 4002	Inductor	CTF1306
L 4003	Inductor	CTF1306
L 4004	Inductor	CTF1306
L 4005	Inductor	CTF1306
L 4006	Inductor-Array	CTF1421
L 4007	Ferrite Bead	CTF1528
L 4008	Inductor	CTF1306
L 4011	Inductor	CTF1306
L 4012	Ferrite Bead	CTF1528
L 4013	Ferrite Bead	CTF1528
L 4014	Ferrite Bead	CTF1528
L 4015	Inductor	CTF1306
L 4016	Ferrite Bead	CTF1528

Circuit Symbol and No.			Part No.
L	4061	Inductor	LCKAW101J2520
L	4071	Inductor	LCKBW100K2520
L	4074	Inductor	LCKBW100K2520
L	4075	Inductor	LCKBW100K2520
L	4078	Inductor	LCKBW100K2520
L	4079	Inductor	CTF1306
L	4092	Inductor	CTF1306
L	4094	Inductor	CTF1306
L	4101	Inductor	LCKBW100K2520
L	4141	Inductor	LCKBW100K2520
L	4151	Inductor	LCKBW100K2520
L	4152	Inductor	LCKBW100K2520
L	4181	Inductor	LCKAW101J2520
L	4182	Inductor	LCKAW101J2520
L	4311	Inductor	LCKBW100K2520
L	4451	Inductor	CTF1306
L	4691	Inductor	CTF1306
L	4701	Inductor	LCKBW100K2520
L	4732	Inductor	CTF1306
L	4801	Inductor	LCKBW100K2520
L	4802	Inductor	LCKBW100K2520
L	4803	Inductor	LCKBW100K2520
L	4804	Inductor	LCKBW100K2520
L	4841	Choke Coil 10µH	CTH1249
L	4851	Choke Coil 10µH	CTH1259
L	4852	Choke Coil 18µH	CTH1250
L	4861	Choke Coil 10µH	CTH1249
L	4862	Choke Coil 6.8µH	CTH1248
L	4863	Inductor	LCKBW100K2520
L	4864	Inductor	LCKBW100K2520
L	4865	Inductor	LCKBW100K2520
T	5001	Transformer	CTT1103
X	4001	Crystal Resonator 42MHz	CSS1541
X	4701	Ceramic Resonator 4.97MHz	CSS1573
S	4351	Push Switch	CSG1111
S	4352	Push Switch	CSG1111
S	4353	Push Switch	CSG1111
S	4354	Push Switch	CSG1111
S	5001	Push Switch	CSG1111
S	5002	Push Switch	CSG1111
S	5003	Push Switch	CSG1111
VR5001		Semi-fixed 15kΩ(B)	CCP1397
FU4831		Fuse 630mA	CEK1252

RESISTORS

Circuit Symbol and No.			Part No.
R	3		RS1/16S0R0J
R	8		RS1/16S0R0J
R	9		RS1/16S0R0J
R	4001		RS1/16S101J
R	4002		RS1/16S470J
R	4003		RS1/16S101J
R	4004		RS1/16S101J
R	4005		RS1/16S473J
R	4006		RS1/16S392J
R	4009		RS1/16S152J
R	4010		RS1/16S331J
R	4012		RS1/16SS105J
R	4013		RS1/16S391J
R	4015		RS1/16S473J
R	4018		RS1/16S101J
R	4022		RS1/16S0R0J
R	4024		RS1/16S333J
R	4025		RS1/16S101J
R	4026	(UC,EW model)	RS1/16S101J
R	4027		RS1/16S101J
R	4030		RS1/16S101J
R	4061		RS1/16S473J
R	4062		RS1/16S473J
R	4065		RS1/16S1002D
R	4066		RS1/16S1002D
R	4067		RS1/16S1002D
R	4068		RS1/16S5602F
R	4069		RS1/16S5602F
R	4070		RS1/16S5602F
R	4071		RS1/16S5602F
R	4072		RS1/16S5602F
R	4073		RS1/16S5602F
R	4074		RS1/16S102J
R	4075		RS1/16S102J
R	4076		RS1/16S102J
R	4077		RS1/16S0R0J
R	4078		RS1/16S0R0J
R	4079		RS1/16S0R0J
R	4080		RS1/16S0R0J
R	4083		RS1/16SS470J
R	4084		RS1/16S470J
R	4085		RS1/16SS471J
R	4086		RS1/16SS101J
R	4093		RS1/16S471J
R	4095		RS1/16S471J
R	4096		RS1/16SS222J
R	4097		RS1/16SS152J
R	4101		RS1/16S1502F
R	4102		RS1/16S1003F
R	4103		RS1/16S681J
R	4104		RS1/16S331J
R	4107		RS1/16S1002F
R	4108		RS1/16S331J
R	4109		RS1/16S391J
R	4110		RS1/16S391J
R	4111	(UC,EW model)	RS1/16S153J
R	4112	(UC,EW model)	RS1/16S104J
R	4113	(UC,EW model)	RS1/16S681J
R	4114	(UC,EW model)	RS1/16S331J
R	4118	(UC,EW model)	RS1/16S331J
R	4119	(UC,EW model)	RS1/16S391J
R	4120		RS1/16S391J
R	4121	(UC,EW model)	RS1/16S153J
R	4122	(UC,EW model)	RS1/16S104J
R	4123	(UC,EW model)	RS1/16S681J
R	4124	(UC,EW model)	RS1/16S331J
R	4128	(UC,EW model)	RS1/16S331J
R	4129	(UC,EW model)	RS1/16S391J
R	4130		RS1/16S391J
R	4131	(UC,EW model)	RS1/16S153J
R	4132	(UC,EW model)	RS1/16S104J
R	4133	(UC,EW model)	RS1/16S681J
R	4134	(UC,EW model)	RS1/16S331J
R	4138	(UC,EW model)	RS1/16S331J

Circuit Symbol and No.		Part No.
R 4139	(UC,EW model)	RS1/16S391J
R 4140		RS1/16S391J
R 4141	(UC,EW model)	RS1/16S105J
R 4142	(UC,EW model)	RS1/16S224J
R 4145	(UC,EW model)	RS1/16S1501F
R 4146	(UC,EW model)	RS1/16S5602F
R 4147	(UC,EW model)	RS1/16S3302F
R 4148	(UC,EW model)	RS1/16S1002F
R 4150		RS1/16S183J
R 4152		RS1/16S3901F
R 4153		RS1/16S1501F
R 4154		RS1/16S102J
R 4155		RS1/16S102J
R 4156		RS1/16S1501F
R 4157		RS1/16S3901F
R 4160		RS1/16S1002F
R 4161		RS1/16S1802F
R 4162		RS1/16S102J
R 4163		RS1/16S3901F
R 4164		RS1/16S1501F
R 4165		RS1/16S102J
R 4166		RS1/16S272J
R 4167		RS1/16S102J
R 4168		RS1/16S272J
R 4169		RS1/16S102J
R 4170		RS1/16S272J
R 4171		RS1/16S331J
R 4172		RS1/16S103J
R 4174		RS1/16S331J
R 4175		RS1/16S103J
R 4177		RS1/16S331J
R 4178		RS1/16S103J
R 4180		RS1/16S243J
R 4181		RS1/16S3002F
R 4182		RS1/16S223J
R 4183		RS1/16S1203F
R 4184		RS1/16S1602F
R 4185		RS1/16S1502F
R 4186		RS1/16S1002F
R 4187		RS1/16S1002F
R 4188		RS1/16SS101J
R 4189		RS1/16S153J
R 4190		RS1/16S100J
R 4191		RS1/16S153J
R 4192		RS1/16SS100J
R 4193		RS1/16S0R0J
R 4194		RS1/16S0R0J
R 4208		RS1/16SS101J
R 4209		RS1/16SS101J
R 4311		RS1/16S395J
R 4312		RS1/16S105J
R 4313		RS1/16SS393J
R 4314		RS1/16SS103J
R 4315		RS1/16SS203J
R 4316		RS1/16SS393J
R 4321		RS1/16SS121J
R 4322		RS1/16SS181J
R 4323		RS1/16SS121J
R 4324		RS1/16SS181J
R 4331	(EW model)	RS1/16SS151J

Circuit Symbol and No.		Part No.
R 4332	(EW model)	RS1/16SS151J
R 4333	(EW model)	RS1/16SS181J
R 4334	(EW model)	RS1/16SS181J
R 4335	(EW model)	RS1/16SS151J
R 4336	(EW model)	RS1/16SS151J
R 4337	(EW model)	RS1/16SS181J
R 4338	(EW model)	RS1/16SS181J
R 4339	(EW model)	RS1/16SS151J
R 4340	(EW model)	RS1/16SS151J
R 4341	(EW model)	RS1/16SS181J
R 4342	(EW model)	RS1/16SS181J
R 4343	(EW model)	RS1/16SS151J
R 4344	(EW model)	RS1/16SS151J
R 4345	(EW model)	RS1/16SS181J
R 4346	(EW model)	RS1/16SS181J
R 4351		RS1/16SS151J
R 4352		RS1/16SS151J
R 4353		RS1/16SS121J
R 4354		RS1/16SS121J
R 4355		RS1/16SS151J
R 4356		RS1/16SS151J
R 4357		RS1/16SS121J
R 4358		RS1/16SS121J
R 4359		RS1/16SS151J
R 4360		RS1/16SS151J
R 4361		RS1/16SS181J
R 4362		RS1/16SS181J
R 4363		RS1/16SS151J
R 4364		RS1/16SS151J
R 4365		RS1/16SS181J
R 4366		RS1/16SS181J
R 4451		RS1/16S101J
R 4452		RS1/16SS101J
R 4453		RS1/16SS101J
R 4454		RS1/16SS101J
R 4455		RS1/16S101J
R 4456		RS1/16SS103J
R 4483		RS1/16SS0R0J
R 4484		RS1/16SS0R0J
R 4485		RS1/16SS0R0J
R 4487		RS1/16SS0R0J
R 4488		RS1/16SS0R0J
R 4489		RS1/16SS0R0J
R 4490		RS1/16SS0R0J
R 4491		RS1/16SS0R0J
R 4492		RS1/16SS0R0J
R 4493		RS1/16SS0R0J
R 4495		RS1/16SS0R0J
R 4496		RS1/16SS471J
R 4497		RS1/16SS101J
R 4498		RS1/16S0R0J
R 4507		RS1/16SS0R0J
R 4692		RS1/16SS103J
R 4698		RS1/16SS102J
R 4699		RAB4CQ102J
R 4701		RS1/16SS101J
R 4702		RS1/16SS101J
R 4703		RS1/16SS101J
R 4704		RS1/16SS101J
R 4705		RS1/16SS471J

Circuit Symbol and No.		Part No.
R 4706		RS1/16SS471J
R 4707		RS1/16SS0R0J
R 4709		RS1/16SS102J
R 4710		RS1/16SS472J
R 4731		RS1/16S0R0J
R 4802		RS1/16S0R0J
R 4803		RS1/16S333J
R 4804		RS1/16S0R0J
R 4805		RS1/16S0R0J
R 4806		RS1/16S0R0J
R 4831		RS1/16S153J
R 4832		RS1/16S472J
R 4833		RS1/16S472J
R 4835		RS1/16S121J
R 4851		RS1/16S182J
R 4852		RS1/16S512J
R 4861		RS1/16S104J
R 4862		RS1/16S102J
R 4863		RS1/16S1102F
R 4864		RS1/16S2001F
R 4865		RS1/16S3302F
R 4866		RS1/16S2401F
R 4867		RS1/16S5602F
R 4868		RS1/16S2703F
R 4869		RS1/16S5602F
R 5001	(EW model)	RAB4CQ181J
R 5002		RAB4CQ151J
R 5003		RS1/16S473J
R 5004		RAB4CQ181J
R 5005		RS1/16S104J
R 5006		RS1/16S472J
R 5007		RS1/16S473J
R 5008		RS1/16S473J
R 5009		RS1/16S105J
R 5010		RS1/16S333J
R 5011		RS1/16S513J
R 5014		RS1/16S102J
R 5015		RS1/16S105J
R 5016		RS1/16S563J
R 5017		RS1/16S103J
R 5018		RS1/16S103J
R 5019		RS1/16S561J
R 5022		RS1/16SS181J
R 5023		RS1/16SS221J

CAPACITORS

C 4001		CKSRYB105K6R3
C 4002		CKSSYB104K10
C 4003		CKSSYB104K10
C 4004		CKSSYB104K10
C 4005		CKSSYB104K10
C 4006		CKSSYB104K10
C 4007		CKSSYB104K10
C 4008		CKSSYB104K10
C 4009		CKSSYB104K10
C 4010		CKSSYB104K10
C 4011		CKSSYB104K10
C 4012		CKSSYB104K10
C 4013		CKSRYB392K50

Circuit Symbol and No.		Part No.
C 4015		CKSRYB105K6R3
C 4016		CKSSYB104K10
C 4017		CKSSYB104K10
C 4018		CKSRYB104K16
C 4019		CKSRYB104K16
C 4020		CKSRYB104K16
C 4021		CKSSYB104K10
C 4022		CKSRYB104K16
C 4023		CKSRYB104K16
C 4024		CKSRYB104K16
C 4025		CKSSYB104K10
C 4026		CKSSYB104K10
C 4027		CKSSYB104K10
C 4028		CKSSYB104K10
C 4029		CKSSYB104K10
C 4030		CKSRYB104K16
C 4031		CKSSYB104K10
C 4032		CKSSYB104K10
C 4033		CKSSYB104K10
C 4034		CKSSYB104K10
C 4035		CKSRYB103K50
C 4036		CCSRCH4R0C50
C 4037		CKSSYB104K10
C 4040		CKSSYB104K10
C 4042		CCSRCH181J50
C 4045		CCSRCH8R0D50
C 4046		CCSRCH8R0D50
C 4047		CKSSYB104K10
C 4048		CKSSYB104K10
C 4049		CKSSYB104K10
C 4050		CKSRYB105K6R3
C 4051		CKSSYB104K10
C 4052		CKSSYB104K10
C 4053		CCSRCH101J50
C 4054		CCSRCH101J50
C 4055		CKSRYB104K16
C 4061		CKSRYB104K16
C 4062		CKSRYB104K16
C 4063		CKSRYB104K16
C 4064		CSZS100M10
C 4068		CKSQYB225K10
C 4069		CKSQYB225K10
C 4070		CKSQYB225K10
C 4071		CSZS100M10
C 4073	(UC,EW model)	CCSSCH151J50
C 4074		CKSRYB105K6R3
C 4075		CKSRYB105K6R3
C 4101		CKSYB106K6R3
C 4102		CCSRCH470J50
C 4103		CCSRCH470J50
C 4104		CKSRYB104K16
C 4105		CSZS100M10
C 4111	(UC,EW model)	CKSYB106K6R3
C 4112	(UC,EW model)	CCSRCH470J50
C 4113	(UC,EW model)	CCSRCH470J50
C 4114	(UC,EW model)	CKSRYB104K16
C 4121	(UC,EW model)	CKSYB106K6R3
C 4122	(UC,EW model)	CCSRCH470J50
C 4123	(UC,EW model)	CCSRCH470J50
C 4124	(UC,EW model)	CKSRYB104K16

Circuit Symbol and No.		Part No.
C 4131	(UC,EW model)	CKSYB106K6R3
C 4132	(UC,EW model)	CCSRCH470J50
C 4133	(UC,EW model)	CCSRCH470J50
C 4134	(UC,EW model)	CKSRYB104K16
C 4140	(UC,EW model)	CKSQYB225K10
C 4141	(UC,EW model)	CKSRYB105K6R3
C 4142	(UC,EW model)	CKSRYB104K16
C 4143	(UC,EW model)	CSZS100M10
C 4144	(UC,EW model)	CKSRYB104K16
C 4145	(UC,EW model)	CKSRYB104K16
C 4151		CSZSR220M16
C 4152		CKSRYB103K50
C 4153		CCSRCH4R0C50
C 4154		CCSRCH4R0C50
C 4155		CCSRCH4R0C50
C 4156		CKSRYB104K16
C 4160		CKSRYB104K16
C 4161		CKSRYB104K16
C 4162		CKSRYB104K16
C 4163		CKSQYB225K10
C 4164		CKSQYB225K10
C 4165		CKSQYB225K10
C 4166		CKSRYB104K16
C 4167		CKSRYB104K16
C 4168		CKSRYB104K16
C 4169		CKSRYB103K50
C 4170		CSZSR220M16
C 4171		CSZSR220M16
C 4181		CSZSR220M16
C 4182		CKSRYB104K16
C 4183		CSZSR4R7M16
C 4184		CKSRYB104K16
C 4186		CKSRYB104K16
C 4188		CKSRYB104K16
C 4311		CKSRYB224K10
C 4312		CKSRYB104K16
C 4313		CKSRYB104K16
C 4314		CKSRYB104K16
C 4315		CKSRYB104K16
C 4321		CKSRYB104K16
C 4322		CKSRYB104K16
C 4401		CKSSYB102K50
C 4402		CKSSYB102K50
C 4403		CKSSYB102K50
C 4404		CKSSYB102K50
C 4451	10µF	CCG1138
C 4452	10µF	CCG1138
C 4454		CKSRYB104K16
C 4691		CKSRYB104K16
C 4701		CSZSR330M10
C 4702		CKSRYB104K16
C 4731		CKSRYB104K16
C 4732		CKSRYB104K16
C 4801		CSZSR4R7M16
C 4802		CKSRYB104K16
C 4803		CSZS100M10
C 4804		CKSRYB104K16
C 4805		CSZSR330M10
C 4806		CKSRYB104K16
C 4807		CSZSR33M25

Circuit Symbol and No.		Part No.
C 4808		CKSRYB104K25
C 4809		CKSSYB104K10
C 4810		CKSSYB104K10
C 4831		CKSSYB104K10
C 4832		CKSRYB104K25
C 4835		CKSRYB104K16
C 4836		CKSRYB104K16
C 4841		CKSRYB105K6R3
C 4843		CSZS100M10
C 4844		CKSRYB104K16
C 4851		CKSRYB104K16
C 4852	68µF/6.3V	CCH1440
C 4853		CKSRYB104K16
C 4854		CKSRYB104K16
C 4855	10µF	CCG1138
C 4856		CKSRYB332K50
C 4858	10µF	CCG1138
C 4859		CKSRYB104K16
C 4860		CKSYB106K6R3
C 4861		CKSYB106K6R3
C 4862		CCSRCH100D50
C 4863		CKSRYB683K16
C 4864		CKSRYB104K16
C 4865		CKSRYB471K50
C 4866		CKSRYB224K16
C 4867		CKSRYB104K16
C 4868		CKSRYB104K16
C 4869		CKSRYB104K16
C 4870		CKSRYB224K16
C 4871		CKSRYB224K16
C 4872		CKSRYB104K16
C 4873		CKSQYB105K16
C 4874		CKSQYB474K25
C 4875		CKSRYB104K16
C 4876		CKSQYB474K25
C 4877		CKSQYB105K16
C 4878		CKSRYB104K16
C 4879	22µF/12V	CCH1359
C 4881		CKSRYB104K25
C 4882		CKSRYB104K16
C 4883		CKSRYB104K16
C 4884		CKSRYB104K16
C 4885	68µF/6.3V	CCH1440
C 4886		CKSRYB104K16
C 4887		CKSRYB104K16
C 5001		CKSRYB104K16
C 5002		CKSRYB105K6R3
C 5005		CKSRYB105K6R3
C 5006		CKSRYB104K16
C 5007		CKSRYB105K6R3
C 5008		CKSQYB335K6R3
C 5011		CKSRYB332K50
C 5012		CKSRYB105K6R3
C 5013		CKSRYB152K50
C 5014		CKSRYB104K16
C 5015		CKSRYB473K50
C 5016		CKSRYB103K50
C 5017		CFHSQ221J50
C 5018		CKSRYB473K50
C 5019	10µF	CCG1138

Circuit Symbol and No.			Part No.
C	5020	10µF	CCG1138
C	5021		CKSQYB105K16
C	5022		CKSQYB105K16
C	5023	22pF	CCG1140
C	5024		CKSRYB223K50

Keyboard Unit Consists of Grille PCB Panel PCB

L M

Unit Number:CWM8766 (UC,RC,RD model)
Unit Number:CWM8765(EW model)
Unit Name:Keyboard Unit

MISCELLANEOUS

Circuit Symbol and No.			Part No.
IC	5501	HIC	RS-140
D	5501	Diode(EW model)	DAN202U
D	5502	LED	CL190UBX
D	5503	LED	CL190UBX
D	5504	LED	CL-195PG-CD
D	5505	LED	CL-195PG-CD
D	5506	LED(EW model)	CL-195SR-CD
D	5507	LED(EW model)	CL-195SR-CD
D	5508	LED(EW model)	CL-195SR-CD
D	5509	LED	CL-195PG-CD
D	5510	LED	CL-195PG-CD
D	5512	LED(EW model)	CL-195SR-CD
D	5513	LED	CL-195PG-CD
D	5514	LED(EW model)	CL-195SR-CD
D	5515	LED	CL-195PG-CD
D	5516	LED	CL-195PG-CD
D	5517	LED(EW model)	CL-195SR-CD
D	5518	LED	CL-195PG-CD
D	5519	LED(EW model)	CL-195SR-CD
D	5520	LED(EW model)	CL-195SR-CD
D	5521	LED	CL-195PG-CD
D	5522	LED	CL-195PG-CD
D	5523	LED(EW model)	CL-195SR-CD
D	5524	LED	CL-195PG-CD
D	5525	LED(EW model)	CL-195SR-CD
D	5526	LED	CL-195PG-CD
D	5527	Diode	UDZS6R8(B)
D	5528	LED(EW model)	CL-195SR-CD
D	5529	LED	CL-195PG-CD
D	5530	LED	CL-195PG-CD
D	5531	LED	CL-195SR-CD
D	5532	LED(EW model)	CL-195SR-CD
D	5534	LED	CL-195PG-CD
D	5535	LED(EW model)	CL-195SR-CD
D	5901	LED	SML-010VT
S	5501	Push Switch	CSG1111
S	5502	Push Switch	CSG1111
S	5503	Push Switch	CSG1111
S	5504	Push Switch	CSG1111
S	5505	Push Switch	CSG1111
S	5506	Push Switch	CSG1111
S	5507	Push Switch	CSG1111
S	5508	Push Switch	CSG1111
S	5509	Push Switch	CSG1111
S	5510	Encoder(Volume)	CSD1094
S	5511	Switch(Joystick)	CSX1047
S	5901	Push Switch	CSG1111

RESISTORS

Circuit Symbol and No.			Part No.
R	5501	(UC,RC,RD model)	RS1/16S470J
R	5503		RS1/16S122J
R	5504		RS1/16S202J
R	5505		RS1/16S392J
R	5506		RS1/16S123J
R	5508		RS1/16S181J
R	5509		RS1/16S181J
R	5510		RS1/16S151J
R	5511		RS1/16S151J
R	5512	(EW model)	RS1/16S181J
R	5514		RS1/16S122J
R	5515		RS1/16S202J
R	5516		RS1/16S392J
R	5517	(EW model)	RS1/16S181J
R	5519	(EW model)	RS1/16S181J
R	5520		RS1/16S181J
R	5521		RS1/16S181J
R	5522		RS1/16S151J
R	5524		RS1/16S151J
R	5525		RS1/16S472J
R	5527	(EW model)	RS1/16S181J
R	5528	(EW model)	RS1/16S181J
R	5530		RS1/16S181J
R	5531		RS1/16S181J
R	5532		RS1/16S181J
R	5533		RS1/16S151J
R	5534		RS1/16S151J
R	5535		RS1/16S121J
R	5536		RS1/16S181J
R	5537	(EW model)	RS1/16S181J
R	5538		RS1/16S181J
R	5539	(EW model)	RS1/16S181J
R	5540		RS1/16SS474J
R	5541		RS1/16S151J
R	5542	(EW model)	RS1/16S181J
R	5543		RS1/16S151J
R	5544		RS1/16S0R0J
R	5546		RS1/16S181J
R	5547		RS1/16SS472J
R	5548		RS1/16SS562J
R	5549		RS1/16SS471J
R	5550		RS1/16SS472J
R	5551		RS1/16SS102J
R	5552		RS1/16SS472J
R	5553		RS1/16SS472J
R	5554		RS1/16SS472J
R	5555		RS1/16SS153J
R	5556		RS1/16S181J
R	5557		RS1/16SS472J
R	5558		RS1/16S221J

Circuit Symbol and No.		Part No.
R 5559		RS1/16S151J
R 5560	(EW model)	RS1/16S181J
R 5561		RS1/16S221J
R 5562		RS1/16S151J
R 5563		RS1/16S101J
R 5564	(EW model)	RS1/16S181J
R 5565		RS1/16S181J
R 5566		RS1/16S181J
R 5567	(EW model)	RS1/16S181J
R 5568		RS1/16S181J
R 5569		RS1/16S151J
R 5570		RS1/16S151J
R 5571		RS1/16S271J
R 5572		RS1/16S271J
R 5573		RS1/16S181J
R 5574	(EW model)	RS1/16S181J
R 5575		RS1/16S181J
R 5576		RS1/16S151J
R 5577		RS1/16S151J
R 5578	(EW model)	RS1/16S221J
R 5579	(EW model)	RS1/16S221J
R 5580	(EW model)	RS1/16S181J
R 5581	(EW model)	RS1/16S221J
R 5584		RS1/16SS0R0J
R 5585		RS1/16S390J
R 5904		RS1/16S151J

CAPACITORS

C 5509		CSZSQ100M6R3
C 5514		CKSRYB104K16
C 5515		CKSRYB104K16
C 5516		CKSRYB104K16

N

Unit Number:CZW3087
Unit Name:Main Unit

MISCELLANEOUS

IC 3801	IC	BA00AST
IC 3802	IC	BA6247FP
IC 3803	IC	TA78L05F
IC 3804	IC	TC7S14FU
IC 3805	Photo-interrupter	GP2L24B
Q 3801	Transistor	DTC124EU
Q 3802	Transistor	2SA1037K
Q 3803	Transistor	DTC124EU
Q 3804	Transistor	UMD2N
D 3801	Diode	UDZS5R6(B)
D 3802	Diode	1SS355
L 3801	Inductor	LCTA150J2520
L 3802	Inductor	LCTA150J2520

RESISTORS

Circuit Symbol and No.	Part No.
R 3801	RS1/16S103J
R 3802	RS1/16S222J
R 3803	RS1/16S471J
R 3804	RS1/16S102J
R 3805	RS1/16S102J
R 3806	RS1/16S102J
R 3807	RS1/16S102J
R 3808	RS1/16S103J
R 3809	RS1/16S222J
R 3810	RS1/16S222J
R 3811	RS1/16S102J
R 3812	RS1/16S102J
R 3813	RS1/16S472J
R 3814	RS1/16S102J
R 3815	RS1/16S0R0J
R 3816	RS1/16S0R0J
R 3817	RS1/16S0R0J
R 3818	RS1/16S473J
R 3819	RS1/16S0R0J
R 3821	RS1/16S473J
R 3822	RS1/16S512J
R 3823	RS1/16S0R0J

CAPACITORS

C 3801	CKSQYB105K16
C 3802	CKSQYB105K16
C 3803	CKSRYB104K16
C 3804	CKSRYB104K16
C 3805	CKSRYB104K16
C 3806	CKSRYB223K50
C 3807	CKSRYB223K50
C 3808	CEVW101M16
C 3809	CEVW101M16
C 3810	CKSRYB104K16
C 3811	CEVW100M16
C 3812	CKSRYB104K16
C 3813	CKSRYB102K50
C 3815	CKSQYB104K50
C 3819	CEVW101M16

O

Unit Number:CZW3088
Unit Name:SW Unit

S 3831	Spring Switch(ANGLE)	CSN1052
S 3832	Spring Switch(LIFT)	CSN1052

P

Unit Number:CZW3089
Unit Name:Volume Unit

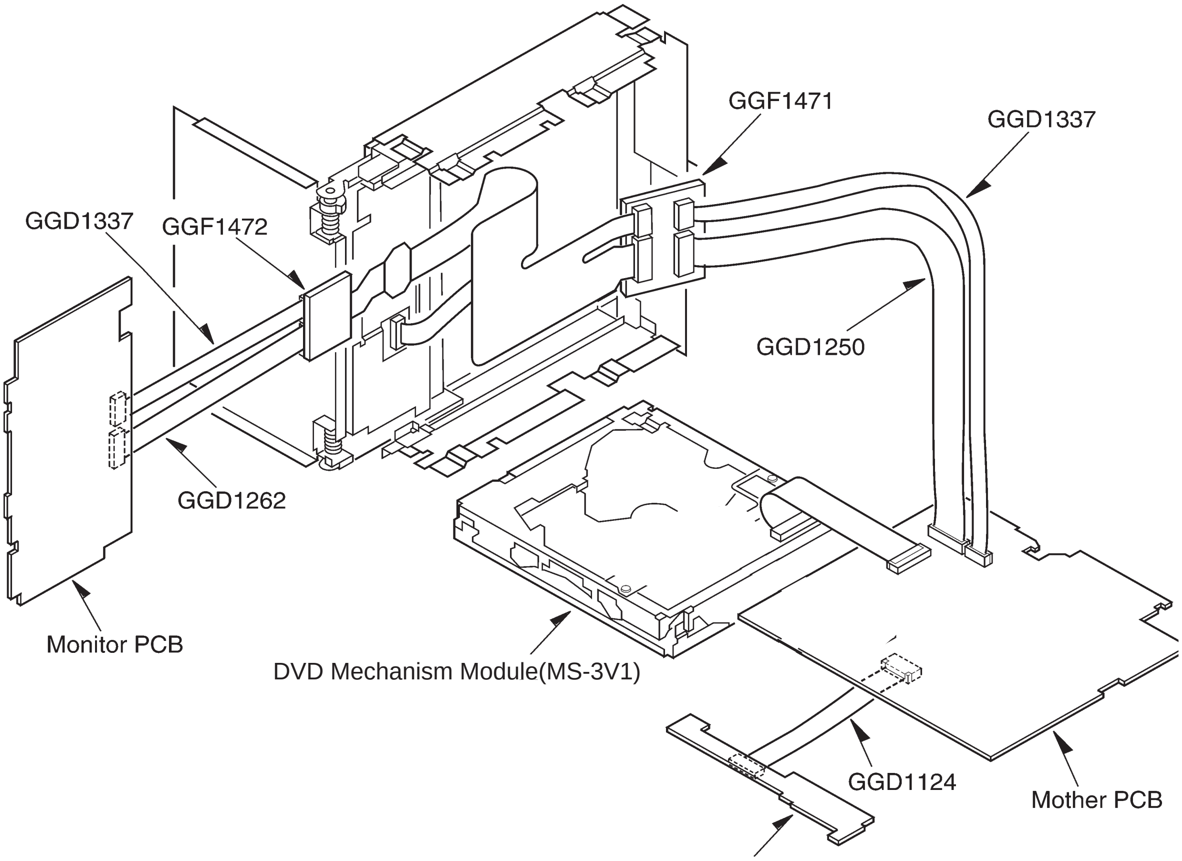
VR3841	Volume(Angle sense)	CCW1025

Miscellaneous Parts List

	Pickup Unit(Service)	CXX1770
M 1	Motor Unit(LOADING)	CXB8687
M 2	Motor Unit(CARRIAGE)	CXB8688
M 3	Motor(SPINDLE)	CXM1272
M 1001	Fan Motor(REAR)	CXM1262
M 1002	Fan Motor(CENTER)	CXM1276
M 3001	Motor Unit(Position)	CXB9515
M 3002	Motor Unit(Angle)	CXB9516

6. ADJUSTMENT

6.1 JIG CONNECTION DIAGRAM


GGF1471
GGD1337
GGD1337
GGF1472
GGD1250
GGD1262
Monitor PCB
DVD Mechanism Module(MS-3V1)
GGD1124
Mother PCB
Panel PCB

Function Name		Jig No.
Mother PCB(CN501) <-> Main Unit(CN3801)	PCB	GGF1471
Mother PCB(CN501) <-> GGF1471	50P FFC	GGD1250
Mother PCB(CN502) <-> GGF1471	24P FFC	GGD1337
Mother PCB(CN501,CN502) <-> Monitor PCB(CN4461,CN4481)	PCB	GGF1472
Monitor PCB(CN4461) <-> GGF1472	33P FFC	GGD1262
Monitor PCB(CN4481) <-> GGF1472	24P FFC	GGD1337
Mother PCB(CN601) <-> Panel PCB(CN5901)	17PFFC	GGD1124

6.2 DVD ADJUSTMENT

1) Precautions

This product uses 5V and 3.3V as standard voltages. The electrical potential that is the reference for signals, is not GND, but VREF (approximately 2.2V) and VHALF (approximately 1.65V).

During product adjustments, if the reference voltage is mistakenly taken as GND, and a grounding contact is made, not only would it be impossible to measure the accurate electrical potential, but also the servo motor would malfunction, resulting in the application of a strong impact on the pick up. The following precautionary measures should be strictly adhered to, in order to avoid such problems.

The reference voltage and GND should not be confused when using the minus probe of a measurement device. When an oscilloscope is being used special care should be taken to make sure that the reference voltage is not connected to the probe of ch1 (on the minus side), while the probe of ch2 (on the minus side), is connected to GND. Further, since the body frame of most measurement devices have the same electrical potential as the minus side of the probe, the body frame of the measurement device should be set to floating ground.

If the reference voltage is connected to GND by mistake, turn the regulator OFF immediately, or turn the power OFF.

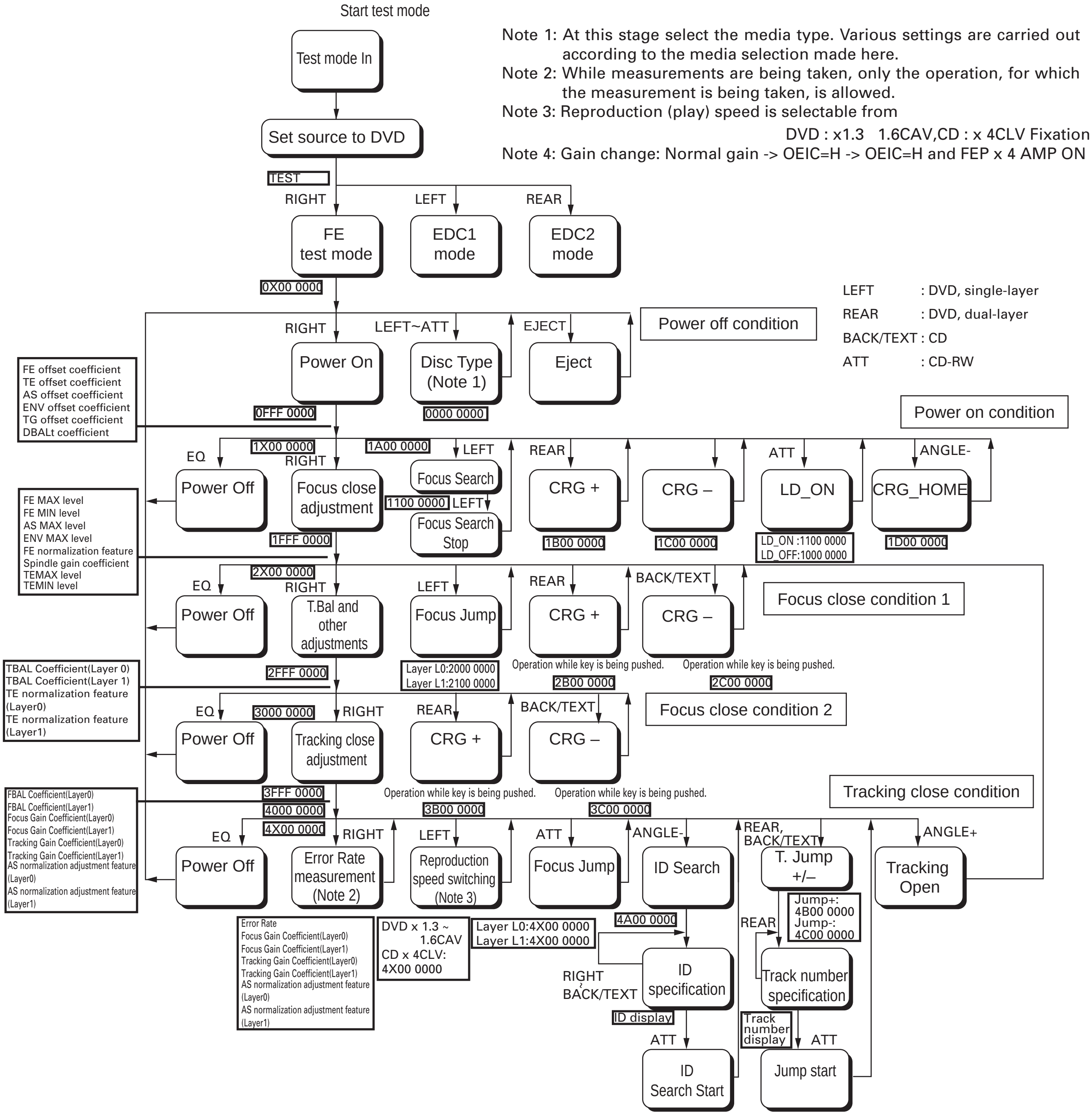
- Remove the filters and wires used for measurements only after the regulator has been turned OFF.
- After the power supply is turned on, regulator ON the following adjustment and measurement are promptly done.
- Whenever the product is in the test mode, the software will not take any protective action. For this reason, special care should be taken to make sure that no mechanical or electrical shock could be applied to the product when taking measurements in the test mode.
- Whenever the EJECT key is pressed to eject the disk, no other keys, other than the EJECT key, should be pressed until the disk eject action has been completed.
- Press the EJECT key only after the disk has stopped completely.
- If the product hangs up turn the power OFF immediately.
- Laser didoes may be damaged, if the volume switch for the laser power adjustment of the pick up unit, is turned.

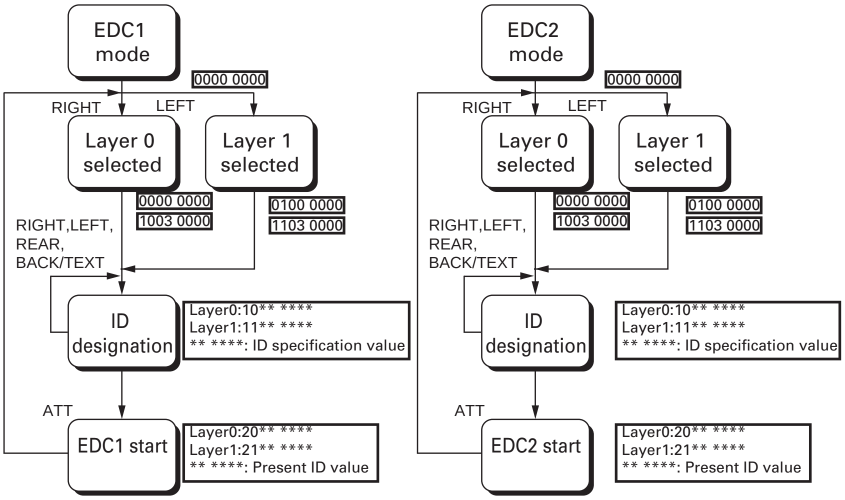
Attention)

- Test mode starting procedure
  ACC ON while pressing the BAND/ESC
  and ANGLE- keys together.
- Test mode stopping procedure
  ACC and Backup OFF.

● Front-End test mode flow chart

Note 1: At this stage select the media type. Various settings are carried out according to the media selection made here.
Note 2: While measurements are being taken, only the operation, for which the measurement is being taken, is allowed.
Note 3: Reproduction (play) speed is selectable from DVD : x1.3 1.6CAV,CD : x 4CLV Fixation
Note 4: Gain change: Normal gain -> OEIC=H -> OEIC=H and FEP x 4 AMP ON


Start test mode
Test mode In
Set source to DVD
TEST
RIGHT
LEFT
REAR
FE test mode
EDC1 mode
EDC2 mode
0X00 0000
LEFT : DVD, single-layer
REAR : DVD, dual-layer
BACK/TEXT : CD
ATT : CD-RW
Power off condition
RIGHT
LEFT~ATT
EJECT
Power On
Disc Type (Note 1)
Eject
0FFF 0000
0000 0000
Power on condition
FE offset coefficient
TE offset coefficient
AS offset coefficient
ENV offset coefficient
TG offset coefficient
DBALt coefficient
EQ
1X00 0000
RIGHT
1A00 0000
LEFT
REAR
ATT
ANGLE-
Power Off
Focus close adjustment
Focus Search
1100 0000
LEFT
Focus Search Stop
CRG +
CRG –
LD_ON
CRG_HOME
1FFF 0000
1B00 0000
1C00 0000
LD_ON :1100 0000
LD_OFF:1000 0000
1D00 0000
FE MAX level
FE MIN level
AS MAX level
ENV MAX level
FE normalization feature
Spindle gain coefficient
TEMAX level
TEMIN level
EQ
2X00 0000
RIGHT
LEFT
REAR
BACK/TEXT
Power Off
T.Bal and other adjustments
Focus Jump
CRG +
CRG –
Focus close condition 1
2FFF 0000
Layer L0:2000 0000
Layer L1:2100 0000
Operation while key is being pushed.
Operation while key is being pushed.
2B00 0000
2C00 0000
TBAL Coefficient(Layer 0)
TBAL Coefficient(Layer 1)
TE normalization feature (Layer0)
TE normalization feature (Layer1)
EQ
3000 0000
RIGHT
REAR
BACK/TEXT
Focus close condition 2
Power Off
Tracking close adjustment
CRG +
CRG –
3FFF 0000
Operation while key is being pushed.
Operation while key is being pushed.
3B00 0000
3C00 0000
Tracking close condition
FBAL Coefficient(Layer0)
FBAL Coefficient(Layer1)
Focus Gain Coefficient(Layer0)
Focus Gain Coefficient(Layer1)
Tracking Gain Coefficient(Layer0)
Tracking Gain Coefficient(Layer1)
AS normalization adjustment feature (Layer0)
AS normalization adjustment feature (Layer1)
4000 0000
4X00 0000
EQ
RIGHT
LEFT
ATT
ANGLE-
REAR, BACK/TEXT
ANGLE+
Power Off
Error Rate measurement (Note 2)
Reproduction speed switching (Note 3)
Focus Jump
ID Search
T. Jump +/–
Tracking Open
Error Rate
Focus Gain Coefficient(Layer0)
Focus Gain Coefficient(Layer1)
Tracking Gain Coefficient(Layer0)
Tracking Gain Coefficient(Layer1)
AS normalization adjustment feature (Layer0)
AS normalization adjustment feature (Layer1)
DVD x 1.3 ~ 1.6CAV
CD x 4CLV:
4X00 0000
Layer L0:4X00 0000
Layer L1:4X00 0000
4A00 0000
Jump+: 4B00 0000
Jump-: 4C00 0000
REAR
RIGHT ~ BACK/TEXT
ID specification
Track number specification
ID display
Track number display
ATT
ATT
ID Search Start
Jump start


EDC1 mode
0000 0000
RIGHT
LEFT
Layer 0 selected
Layer 1 selected
0000 0000
1003 0000
0100 0000
1103 0000
RIGHT,LEFT, REAR, BACK/TEXT
ID designation
Layer0:10** ****
Layer1:11** ****
** ****: ID specification value
ATT
EDC1 start
Layer0:20** ****
Layer1:21** ****
** ****: Present ID value
EDC2 mode
0000 0000
RIGHT
LEFT
Layer 0 selected
Layer 1 selected
0000 0000
1003 0000
0100 0000
1103 0000
RIGHT,LEFT, REAR, BACK/TEXT
ID designation
Layer0:10** ****
Layer1:11** ****
** ****: ID specification value
ATT
EDC2 start
Layer0:20** ****
Layer1:21** ****
** ****: Present ID value

F-close and F-search cannot be executed, unless LD-ON is set.
[If F-close isn't executed within 9 seconds after LD-ON, it switches to LD-OFF automatically.
And even if F-search is executed within 9 seconds after LD-ON, it also switches to LD-OFF.]
Please carry out F-close after carrying out power-off at once and carrying out power-on again, when carrying out F-close after performing F-search.

The track number designation is selected from the track numbers already prepared for selection.
Switching to cyclic operation is made at step REAR, and the decision is finalized (entered) in step ATT.

For CD: Tracks 1, 4, 10, 11 and 32.

For DVD: Tracks 1, 4, 10, 11, 32, 64 and 100.

Method for designating an ID address:

- A number of digits are determined through commands RIGHT and LEFT. Numerical UP/DOWN operations are performed through commands REAR and BACK/TEXT. The decision is finalized (entered) with command ATT.

Display

Error Code List

Error status from DVD micurocomputer	Contents	Display
0X50	Mecha. error	No dislay
0X40	No disc	No dislay
0X30	The temperature is abnormal	Thermal Protection in Motion
0X20	Read error	Error-02-XX
0XE2	Non-playable disc	NON-PLAYABLE DISC
0X90	Different region disc	DIFFERENT REGION DISC
0XFF	Undefined error	Error-FF

Error code of read error(Part of XX)

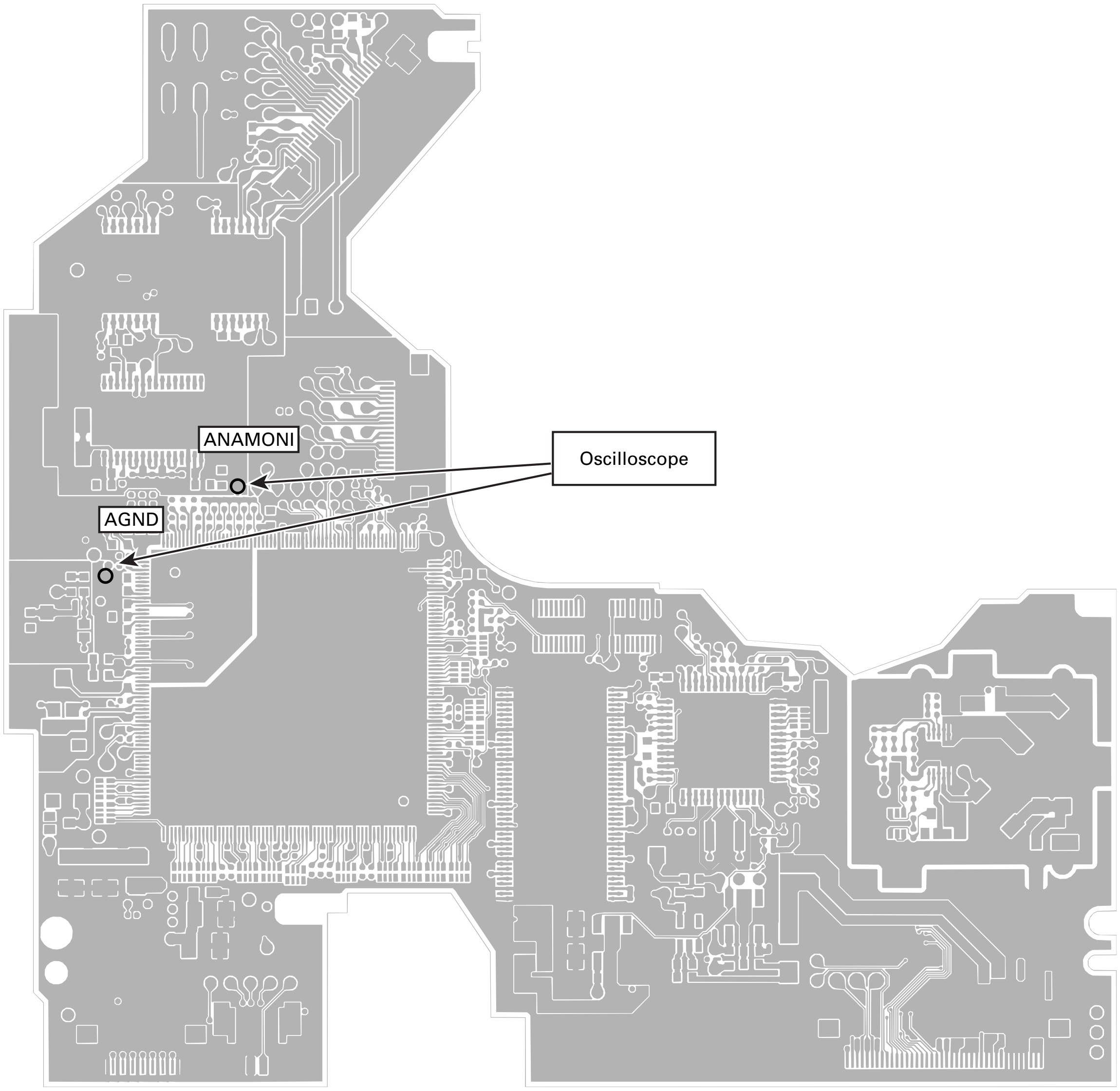
Error Code	Contents	Display
0X99	Data cannot read	Please confirm the disc
0X80	The address cannot be found	Please confirm the disc
0X90	Focus error	Please confirm the disc
0X91	Spindle lock NG	DVD is stopping because mechanism detected abnormality
0X92	Carrige home NG	DVD is stopping because mechanism detected abnormality
0X93	FOK error	Please confirm the disc
0X94	ID/Subcode cannot be read	Please confirm the disc
0X95	High spindle rotation	Please confirm the disc
0X96	Row spindle rotation	DVD is stopping because mechanism detected abnormality
0X98	TOC cannot be found	Please confirm the disc
0X9A	AV chip error	DVD is stopping because mechanism detected abnormality
0X9B	RecaveryNG(BE)	DVD is stopping because mechanism detected abnormality

Skew adjustment

If any of the following replacements have been performed on the system, adjustments for pick up, must be conducted:

1. Pick up unit replacement
2. Spindle motor replacement
3. Carriage chassis replacement
4. Pick up unit main shaft replacement
5. Pick up unit sub-shaft replacement

Measurement device and tools : Oscilloscope
Allen key wrench
40-pin flexible extension (GGD1170)
Disk used : GGV1018
Measurement reference : AGND3
Measurement point : ANAMONI
Connection diagram
DVD core unit



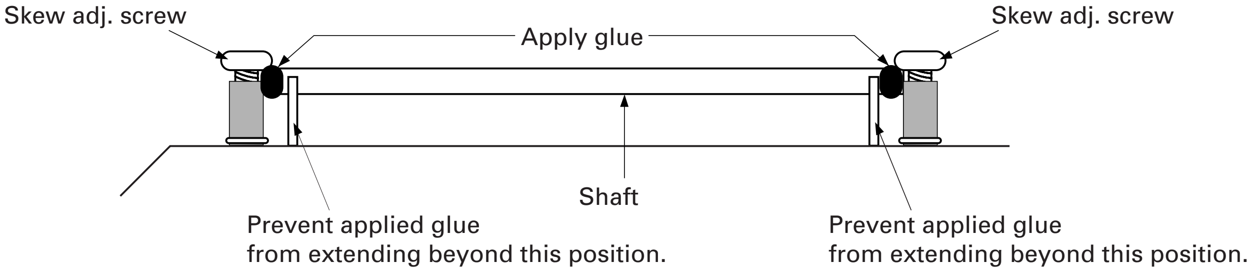
Symptoms in case of poor adjustment: Error efficiency deteriorated: 10^{-3} (Optimum value: 10^{-4} or lower)
High jitter of the RF signal RF waveform deformed
Unstable operation in tracking closing and servo control

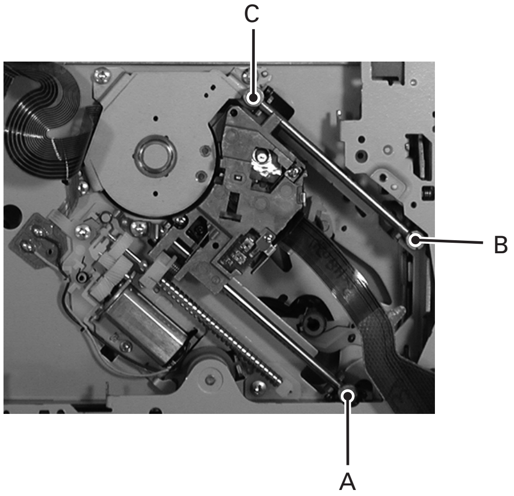
Caution: Avoid exposing your eyes to laser beams for a long time.

Preparation for adjustment: Clean both ends of the shafts.
Use brand new skew screws supplied with the service kit CXX1639.

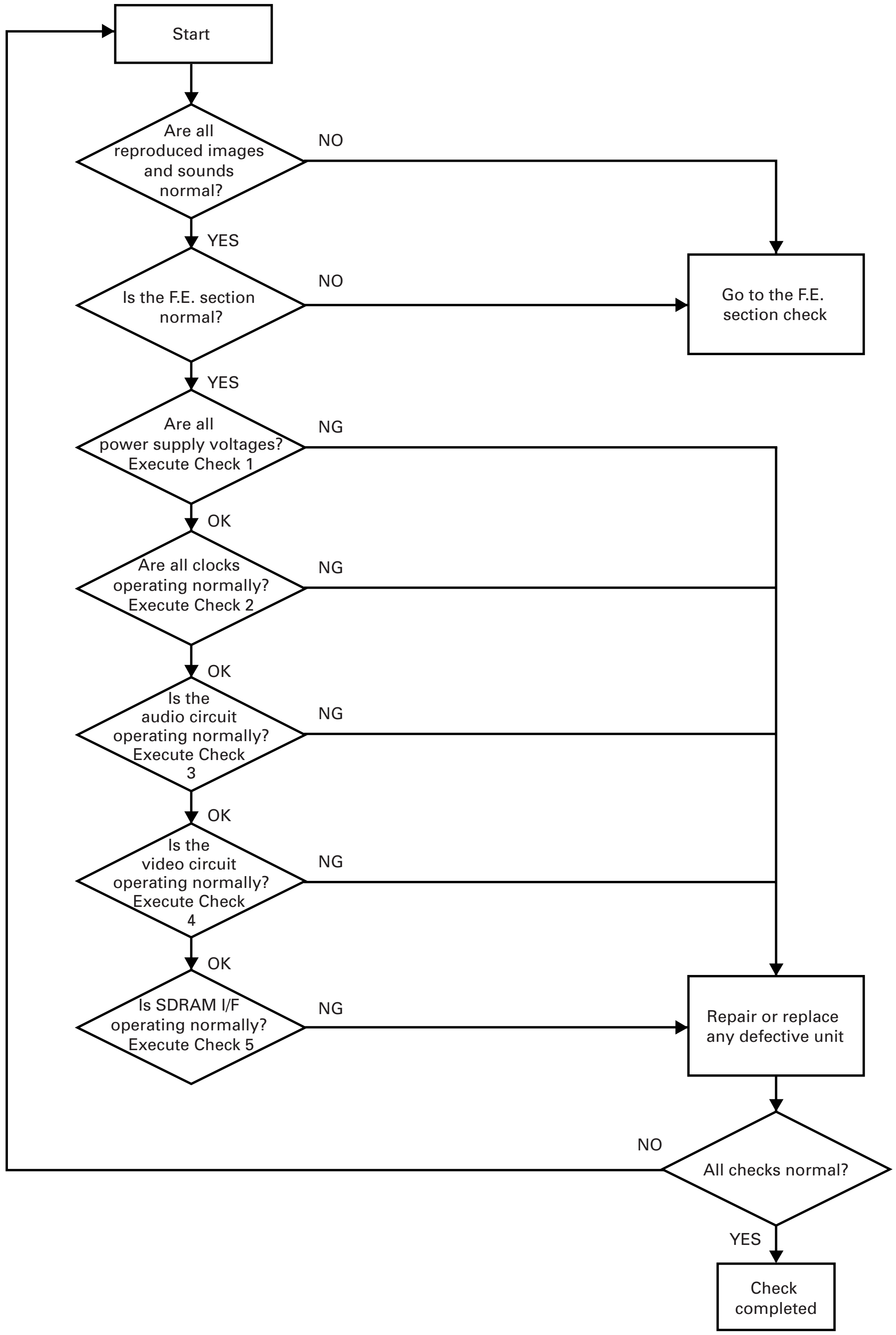
Procedures:

1. Place the DVD mechanism module upside down.
2. After replacing the pickup (by referring to the procedures of "Removing the Pickup."), roughly adjust the three skew screws through visual check so that the pickup is mounted in parallel to the CRG chassis around the inner and outer tacks.
3. Connect an oscilloscope as shown in the connecting diagram.
4. Turn on the power of the product. Load the test disc (GGV1018).
5. In the front-end test mode, set the disc type to DVD layer 1. Then, turn on the power. Move the pickup toward the inner tracks.
6. Turn on the laser diodes.
7. With the focus servo closed, complete all automatic adjustments. Close the tracking servo, and then complete all automatic adjustments.
8. Observing the RF waveform on the oscilloscope, slightly turn the skew adj. screw C to maximize the RF level. Next, move the pickup toward the outer track. Slightly turn the skew adj. B to maximize the RF level. Furthermore, turn the skew adj. screws A and B in the same direction keeping their rotating angles the same until the RF level becomes the maximum. Lastly, move the pickup toward the inner tracks. Turn the skew adj. screw C so that the RF level becomes the maximum.Repeat the step 8 three times.
9. Turn off the power in the test mode. After confirming that the disc has stopped, eject the disc.
10. Adjust with a screw rock the shaft and skew adjustment screw to the same state as initial one.


Skew adj. screw
Apply glue
Skew adj. screw
Shaft
Prevent applied glue from extending beyond this position.
Prevent applied glue from extending beyond this position.



Back end section check flow chart


Start
Are all reproduced images and sounds normal?
NO
YES
Is the F.E. section normal?
NO
Go to the F.E. section check
YES
Are all power supply voltages? Execute Check 1
NG
OK
Are all clocks operating normally? Execute Check 2
NG
OK
Is the audio circuit operating normally? Execute Check 3
NG
OK
Is the video circuit operating normally? Execute Check 4
NG
OK
Is SDRAM I/F operating normally? Execute Check 5
NG
Repair or replace any defective unit
NO
All checks normal?
YES
Check completed

Check 1 : Are all power supply voltages?

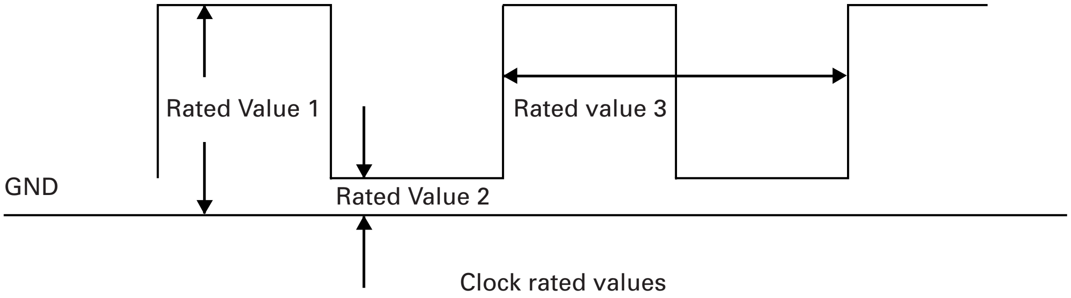
Reproduce DVD-REF-A1 Title 1.
Verify the voltage of the sensing pin.

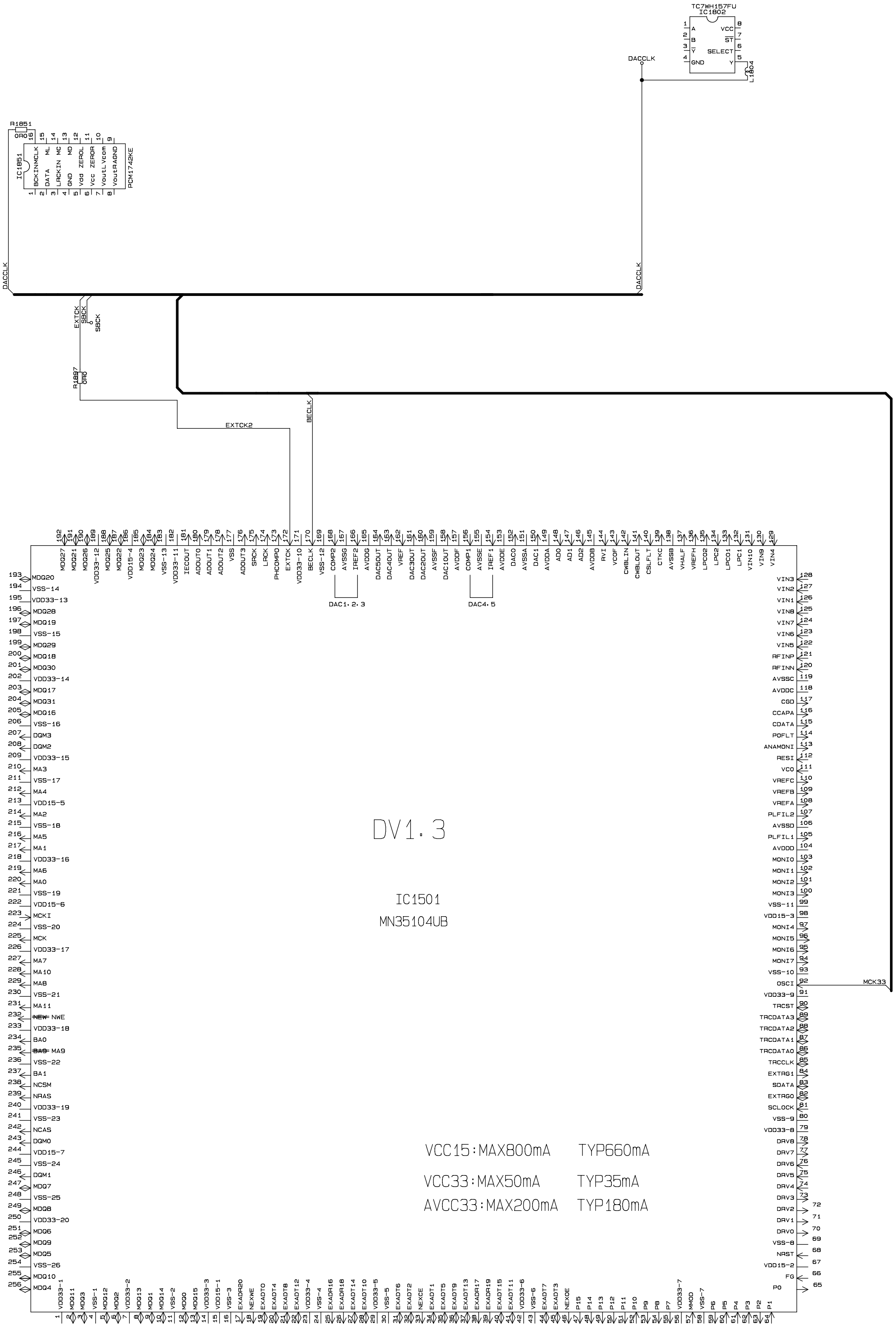
No.	Verification location	Rated value	Unit
1	VD8_1/2 - PGND_1/2	8.0±0.4	V
2	VDD33 - DGND1/2/3	3.3±0.15	V
3	SRVDD - DGND1/2/3	3.3±0.15	V
4	VCC5_1 - AGND1	5.0±0.1	V
5	AVCC5_1 - AGND1	5.0±0.1	V
6	VCC33_1/2 - DGND1/2/3	3.3±0.15	V
7	VCC33_3/4/5 - DGND1/2/3	3.3±0.3	V
8	VCC15_1/2 - DGND1/2/3	1.5±0.1	V
9	VCC18 - DGND1/2/3	****	V

Check 2 : Are all clock operating normally?

Reproduce DVD-REF-A1 Title 1
Check Circuit Diagram ①.
Checks are to conducted with a GND reference.
If locations listed under "verification location 2", can be verified, there will be no need to perform verifications for the locations listed under "verification location 1."
If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder and other defects in the applicable line, vicinity of IC 1802 (Circuit Diagram ①) and peripheral components.

No.	Verification location 1 (Sensing pin)	Verification location 2	Media	Rated value 1	Rated value 2	Rated value 3
1	BECLK	IC1501 170pin	ALL	2.3V ~ VCC33	GND ~ 0.8V	27MHz±50ppm
2	EXTCK	IC1501 172pin	DVD	2.3V ~ VCC33	GND ~ 0.8V	36.8640MHz±300ppm
3	EXTCK	IC1501 172pin	CD	2.3V ~ VCC33	GND ~ 0.8V	33.8688MHz±300ppm
4	MCK33	IC1501 92pin	ALL	2.2V ~ VCC33	GND ~ 0.8V	33.898MHz±300ppm
5	DACCLK	IC1851 16pin	DVD	2.0V ~ VCC33	GND ~ 0.8V	33.8688MHz±300ppm
6	DACCLK	IC1881 3pin	DVD	2.3V ~ VCC33	GND ~ 0.99V	33.8689MHz±300ppm



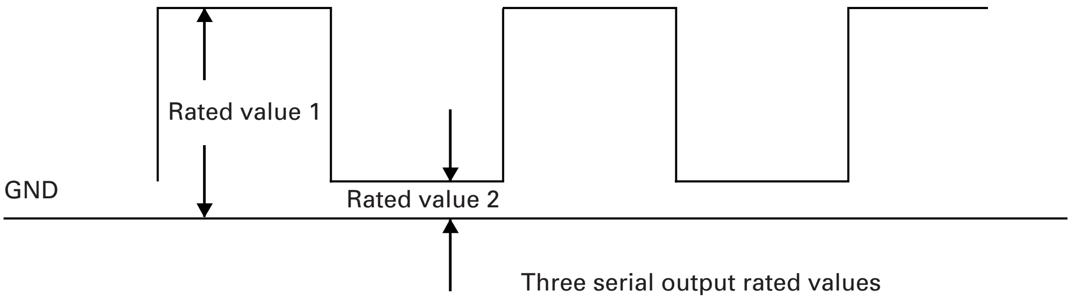

TC7WH157FU
IC1802
A
B
Y
GND
VCC
ST
SELECT
Y
DACCLK
L1804
R1851
0R0
IC1851
PCM1742KE
BCKIN
DATA
LRCKIN
GND
Vdd
Vcc
VoutL
VoutR
MCLK
ML
MC
MD
ZEROL
ZEROR
Vcom
AGND
DACCLK
DACCLK
EXTCK
SBCK
SBCK
R1807
0R0
EXTCK2
BECLK
DAC1,2,3
DAC4,5
MCK33
DV1.3
IC1501
MN35104UB
VCC15:MAX800mA TYP660mA
VCC33:MAX50mA TYP35mA
AVCC33:MAX200mA TYP180mA
MDQ27
MDQ21
MDQ26
VDD33-12
MDQ25
MDQ22
VDD15-4
MDQ23
MDQ24
VSS-13
VDD33-11
IECOUT
ADOUT0
ADOUT1
ADOUT2
VSS
ADOUT3
SRCK
LRCK
PHCOMPO
EXTCK
VDD33-10
BECLK
VSS-12
COMP2
AVSSG
IREF2
AVDDG
DAC5OUT
DAC4OUT
VREF
DAC3OUT
DAC2OUT
AVSSF
DAC1OUT
AVDDF
COMP1
AVSSE
IREF1
AVDDE
DAC0
AVSSA
DAC1
AVDDA
AD0
AD1
AD2
AVDDB
RVI
VCOF
CWBLIN
CWBLOUT
CSLFLT
CTKC
AVSSB
VHALF
VREFH
LPCO2
LPC2
LPCO1
LPC1
VIN10
VIN9
VIN4
MDQ20
VSS-14
VDD33-13
MDQ28
MDQ19
VSS-15
MDQ29
MDQ18
MDQ30
VDD33-14
MDQ17
MDQ31
MDQ16
VSS-16
DQM3
DQM2
VDD33-15
MA3
VSS-17
MA4
VDD15-5
MA2
VSS-18
MA5
MA1
VDD33-16
MA6
MA0
VSS-19
VDD15-6
MCKI
VSS-20
MCK
VDD33-17
MA7
MA10
MA8
VSS-21
MA11
~~NEW~~ NWE
VDD33-18
BA0
~~BA9~~ MA9
VSS-22
BA1
NCSM
NRAS
VDD33-19
VSS-23
NCAS
DQM0
VDD15-7
VSS-24
DQM1
MDQ7
VSS-25
MDQ8
VDD33-20
MDQ6
MDQ9
MDQ5
VSS-26
MDQ10
MDQ4
VIN3
VIN2
VIN1
VIN8
VIN7
VIN6
VIN5
RFINP
RFINN
AVSSC
AVDDC
CGO
CCAPA
CDATA
POFLT
ANAMONI
RESI
VCO
VREFC
VREFB
VREFA
PLFIL2
AVSSD
PLFIL1
AVDDD
MONI0
MONI1
MONI2
MONI3
VSS-11
VDD15-3
MONI4
MONI5
MONI6
MONI7
VSS-10
OSCI
VDD33-9
TRCST
TRCDATA3
TRCDATA2
TRCDATA1
TRCDATA0
TRCCLK
EXTRG1
SDATA
EXTRG0
SCLOCK
VSS-9
VDD33-8
DRV8
DRV7
DRV6
DRV5
DRV4
DRV3
DRV2
DRV1
DRV0
VSS-8
NRST
VDD15-2
FG
P0
VDD33-1
MDQ11
MDQ3
VSS-1
MDQ12
MDQ2
VDD33-2
MDQ13
MDQ1
MDQ14
VSS-2
MDQ0
MDQ15
VDD33-3
VDD15-1
VSS-3
EXADR20
NEXWE
EXADT0
EXADT8
EXADT12
VDD33-4
VSS-4
EXADR16
EXADR18
EXADT14
EXADT10
VDD33-5
VSS-5
EXADT6
EXADT2
NEXCE
EXADT1
EXADT5
EXADT9
EXADT13
EXADR17
EXADR19
EXADT15
EXADT11
VDD33-6
VSS-6
EXADT7
EXADT3
NEXOE
P15
P14
P13
P12
P11
P10
P9
P8
P7
VDD33-7
MMOD
VSS-7
P6
P5
P4
P3
P2
P1

Circuit Diagram ①

Check 3 : Is the audio circuit operating normally?

Reproduce DVD-REF-A1 Title 2 Chapter (48k/16-bit 1 kHz/0dB).
Checks are to be conducted using GNDAU1 (sensing pins) as a reference.
If the locations, listed under "verification location 2", can be verified, there is no need to conduct verifications for the locations listed under "verification location 1."
If the result is not satisfactory, check to see if there are any problems with resin flux cored solder and other defects in the applicable line, vicinity of major parts stated in the above diagram (Circuit Diagram ②) and peripheral components.

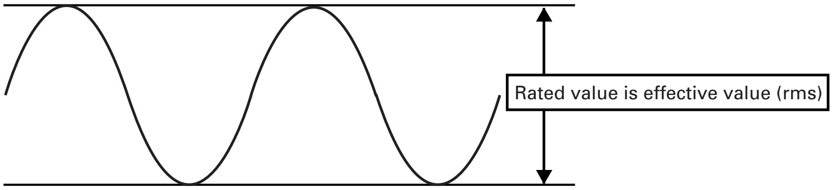
No.	Verification location 1 (Sensing pin)	Verification location 2	Rated value 1	Rated value 2	Reference waveform
1	AOUT0	IC1851 2pin	2.0V and over	0.8V and lower	Waveform 1
2	SRCK	IC1851 1pin	2.0V and over	0.8V and lower	Waveform 1
3	LRCK	IC1851 3pin	2.0V and over	0.8V and lower	Waveform 1



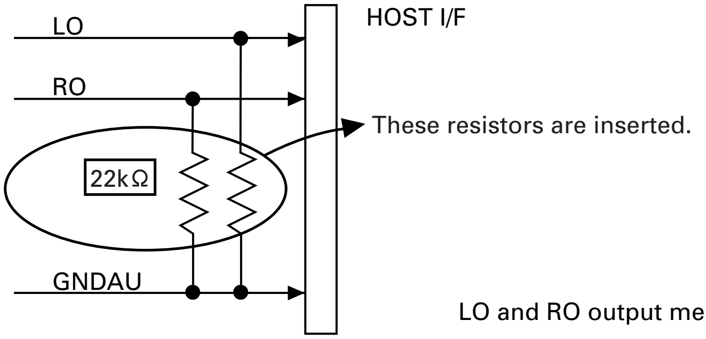
Three serial output rated values

Checks are conducted with the measurement circuit below.

No.	Verification location 1 (Sensing pin)	Verification location 2	Rated value (rms)	Reference waveform
4	LO	CN1901 37pin	1100±150mV	Waveform 2
5	RO	CN1901 35pin	1100±150mV	Waveform 2



Analog audio outputs (LO and RO) rated values



LO and RO output measurement circuit

No.	Verification location 1 (Sensing pin)	Verification location 2	Rated value 1	Rated value 2	Reference waveform
6	IEC958	CN1551 1pin	VCC33V−0.6V and over	0.4Vand lower	Waveform 3

A

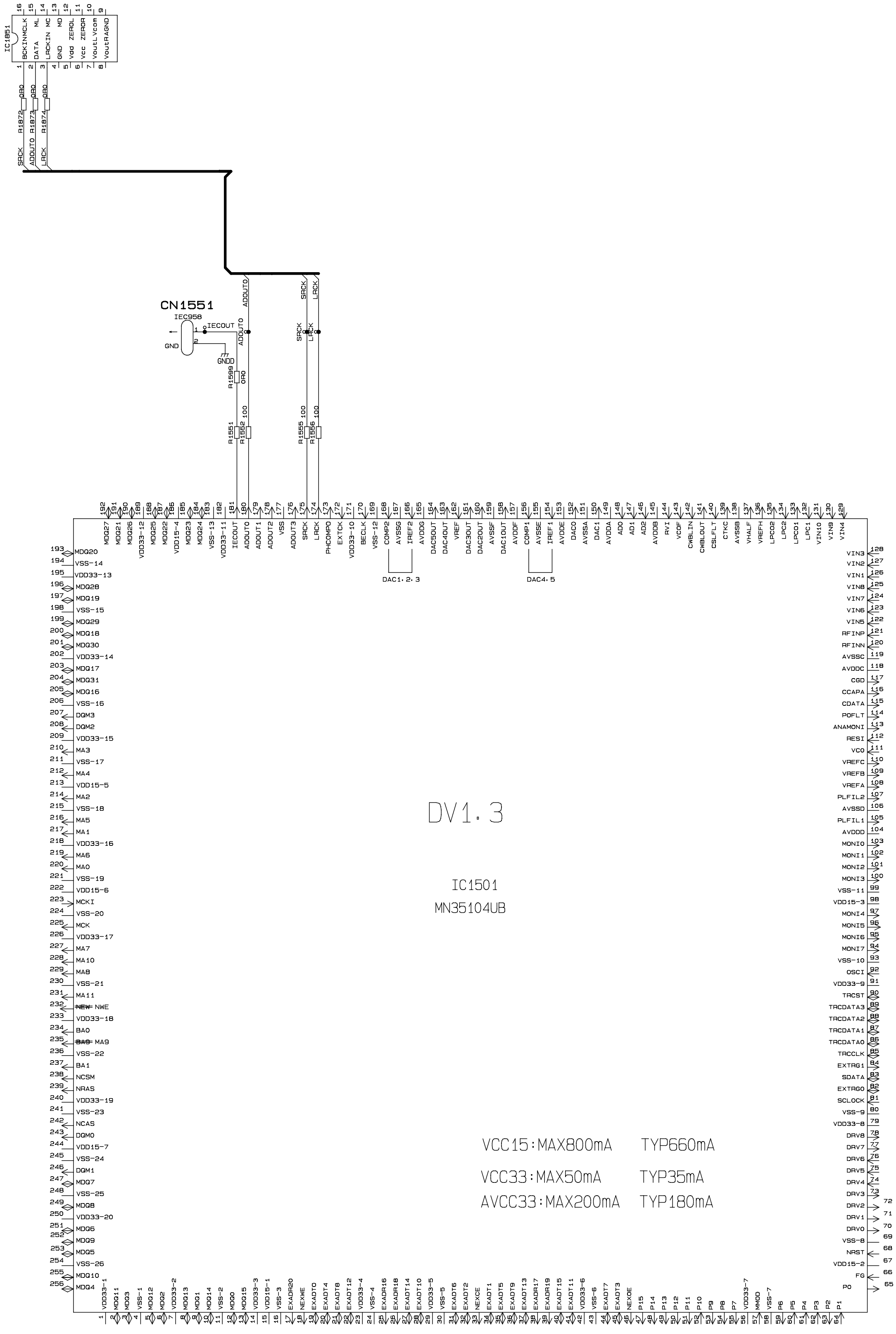
B

C

D

E

F


IC1851
BCKIN MCLK
DATA ML
LRCKIN MC
GND MD
Vdd ZEROL
Vcc ZEROR
VoutL Vcom
VoutR AGND
R1872 0R0
R1873 0R0
R1874 0R0
SRCK
ADDUT0
LRCK
CN1551
IEC958
IECOUT
GND
GNDD
R1599 0R0
R1551
R1552 100
R1555 100
R1556 100
DAC1,2,3
DAC4,5
DV1.3
IC1501
MN35104UB
VCC15:MAX800mA TYP660mA
VCC33:MAX50mA TYP35mA
AVCC33:MAX200mA TYP180mA
MDQ27
MDQ21
MDQ26
VDD33-12
MDQ25
MDQ22
VDD15-4
MDQ23
MDQ24
VSS-13
VDD33-11
IECOUT
ADDUT0
ADDUT1
ADDUT2
VSS
ADOUT3
SRCK
LRCK
PHCOMPO
EXTCK
VDD33-10
BECLK
VSS-12
COMP2
AVSSG
IREF2
AVDDG
DAC5OUT
DAC4OUT
VREF
DAC3OUT
DAC2OUT
AVSSF
DAC1OUT
AVDDF
COMP1
AVSSE
IREF1
AVDDE
DAC0
AVSSA
DAC1
AVDDA
AD0
AD1
AD2
AVDDB
RVI
VCOF
CWBLIN
CWBLOUT
CSLFLT
CTKC
AVSSB
VHALF
VREFH
LPCO2
LPC2
LPCO1
LPC1
VIN10
VIN9
VIN4
MDQ20
VSS-14
VDD33-13
MDQ28
MDQ19
VSS-15
MDQ29
MDQ18
MDQ30
VDD33-14
MDQ17
MDQ31
MDQ16
VSS-16
DQM3
DQM2
VDD33-15
MA3
VSS-17
MA4
VDD15-5
MA2
VSS-18
MA5
MA1
VDD33-16
MA6
MA0
VSS-19
VDD15-6
MCKI
VSS-20
MCK
VDD33-17
MA7
MA10
MA8
VSS-21
MA11
~~NEW~~ NWE
VDD33-18
BA0
~~BA9~~ MA9
VSS-22
BA1
NCSM
NRAS
VDD33-19
VSS-23
NCAS
DQM0
VDD15-7
VSS-24
DQM1
MDQ7
VSS-25
MDQ8
VDD33-20
MDQ6
MDQ9
MDQ5
VSS-26
MDQ10
MDQ4
VIN3
VIN2
VIN1
VIN8
VIN7
VIN6
VIN5
RFINP
RFINN
AVSSC
AVDDC
CGD
CCAPA
CDATA
POFLT
ANAMONI
RESI
VCO
VREFC
VREFB
VREFA
PLFIL2
AVSSD
PLFIL1
AVDDD
MONI0
MONI1
MONI2
MONI3
VSS-11
VDD15-3
MONI4
MONI5
MONI6
MONI7
VSS-10
OSCI
VDD33-9
TRCST
TRCDATA3
TRCDATA2
TRCDATA1
TRCDATA0
TRCCLK
EXTRG1
SDATA
EXTRG0
SCLOCK
VSS-9
VDD33-8
DRV8
DRV7
DRV6
DRV5
DRV4
DRV3
DRV2
DRV1
DRV0
VSS-8
NRST
VDD15-2
FG
P0
VDD33-1
MDQ11
MDQ3
VSS-1
MDQ12
MDQ2
VDD33-2
MDQ13
MDQ1
MDQ14
VSS-2
MDQ0
MDQ15
VDD33-3
VDD15-1
VSS-3
EXADR20
NEXWE
EXADT0
EXADT4
EXADT8
EXADT12
VDD33-4
VSS-4
EXADR16
EXADR18
EXADT14
EXADT10
VDD33-5
VSS-5
EXADT6
EXADT2
NEXCE
EXADT1
EXADT5
EXADT9
EXADT13
EXADR17
EXADR19
EXADT15
EXADT11
VDD33-6
VSS-6
EXADT7
EXADT3
NEXOE
P15
P14
P13
P12
P11
P10
P9
P8
P7
VDD33-7
MMOD
VSS-7
P6
P5
P4
P3
P2
P1

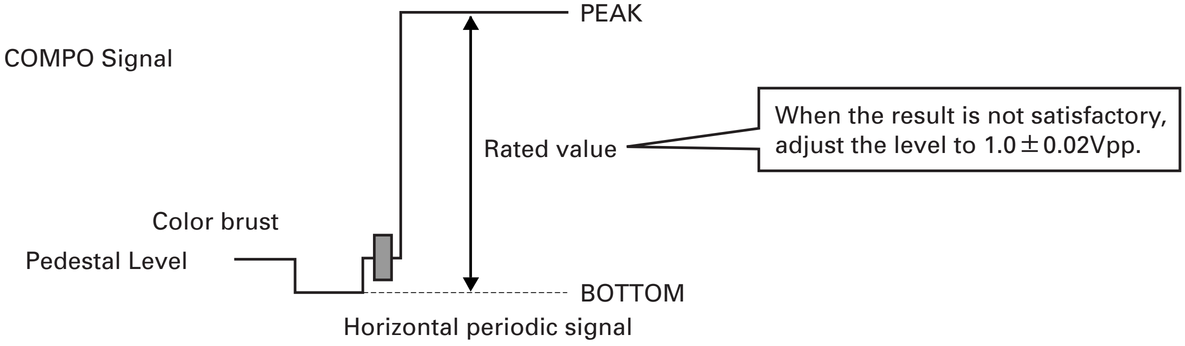
Circuit Diagram ②

Check 4 : Is the video circuit operated normally?

Reproduce DVD-REF-A1 Title 2 Chapters (White 1000IRE)
Monitor the output with the oscilloscope, by setting the COMPO signal to a GND reference.
Set the Trigger mode to the TV trigger, and the Trigger line to line-150.

No.	Verification location 1 (Sensing pin)	Rated value	Reference waveform
1	COMPO	1.0±0.02Vpp	Waveform 4

If the result is not satisfactory, check to see if there are any problems with resin flux cored solder and other defects in the applicable line, vicinity of major parts stated in the above diagram (Circuit Diagram③) and peripheral components.


COMPO Signal
PEAK
Rated value
When the result is not satisfactory, adjust the level to 1.0±0.02Vpp.
Color brust
Pedestal Level
BOTTOM
Horizontal periodic signal

Composite signal white 100% output waveform

< Method of Readjusting Video Levels >

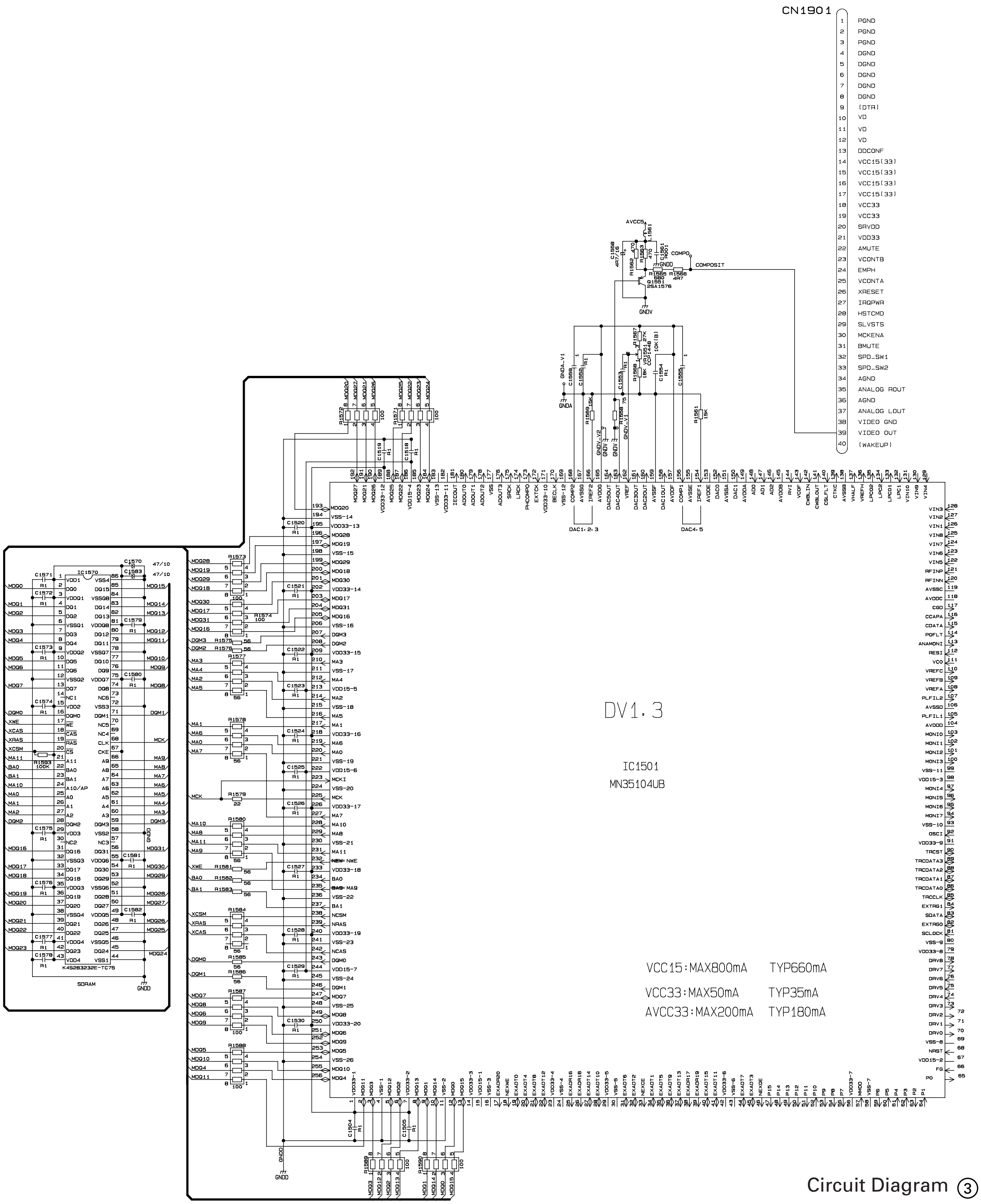
If the video composite output is not within the range of rated value, the video level is readjusted in the following method.
Turn the video level adjustment volume (VR1551) to adjust its level to 1.0 ± 0.02Vpp.

Check 5 : Is SDRAM I/F operated normally?

Reproduce DVD-REF-A1 Title 1.
Check Circuit Diagram③
Common to all DVD-V adapted modules
Check the conductivity of both the "Verification location 1"and the "Verification location 2."
If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where as problem occurs, for the overall sequence of "output" "input" of the checked location.

No.	Signal name	Verification location 1	Verification location 2	Rated value
1	MA0	IC1570 25pin	IC1501 220pin	56Ω±5%
2	MA1	IC1570 26pin	IC1501 217pin	56Ω±5%
3	MA2	IC1570 27pin	IC1501 214pin	56Ω±5%
4	MA3	IC1570 60pin	IC1501 210pin	56Ω±5%
5	MA4	IC1570 61pin	IC1501 212pin	56Ω±5%
6	MA5	IC1570 62pin	IC1501 216pin	56Ω±5%
7	MA6	IC1570 63pin	IC1501 219pin	56Ω±5%
8	MA7	IC1570 64pin	IC1501 227pin	56Ω±5%
9	MA8	IC1570 65pin	IC1501 229pin	56Ω±5%
10	MA9	IC1570 66pin	IC1501 235pin	56Ω±5%
11	MA10	IC1570 24pin	IC1501 228pin	56Ω±5%
12	MA11	IC1570 21pin	IC1501 231pin	56Ω±5%

No.	Signal name	Verification location 1	Verification location 2	Rated value
13	MDQ0	IC1570 2pin	IC1501 12pin	100Ω± 5%
14	MDQ1	IC1570 4pin	IC1501 9pin	100Ω± 5%
15	MDQ2	IC1570 5pin	IC1501 6pin	100Ω± 5%
16	MDQ3	IC1570 7pin	IC1501 3pin	100Ω± 5%
17	MDQ4	IC1570 8pin	IC1501 256pin	100Ω± 5%
18	MDQ5	IC1570 10pin	IC1501 253pin	100Ω± 5%
19	MDQ6	IC1570 11pin	IC1501 251pin	100Ω± 5%
20	MDQ7	IC1570 13pin	IC1501 247pin	100Ω± 5%
21	MDQ8	IC1570 74pin	IC1501 249pin	100Ω± 5%
22	MDQ9	IC1570 76pin	IC1501 252pin	100Ω± 5%
23	MDQ10	IC1570 77pin	IC1501 255pin	100Ω± 5%
24	MDQ11	IC1570 79pin	IC1501 2pin	100Ω± 5%
25	MDQ12	IC1570 80pin	IC1501 5pin	100Ω± 5%
26	MDQ13	IC1570 82pin	IC1501 8pin	100Ω± 5%
27	MDQ14	IC1570 83pin	IC1501 10pin	100Ω± 5%
28	MDQ15	IC1570 85pin	IC1501 13pin	100Ω± 5%
29	MDQ16	IC1570 31pin	IC1501 205pin	100Ω± 5%
30	MDQ17	IC1570 33pin	IC1501 203pin	100Ω± 5%
31	MDQ18	IC1570 34pin	IC1501 200pin	100Ω± 5%
32	MDQ19	IC1570 36pin	IC1501 197pin	100Ω± 5%
33	MDQ20	IC1570 37pin	IC1501 193pin	100Ω± 5%
34	MDQ21	IC1570 39pin	IC1501 191pin	100Ω± 5%
35	MDQ22	IC1570 40pin	IC1501 187pin	100Ω± 5%
36	MDQ23	IC1570 42pin	IC1501 185pin	100Ω± 5%
37	MDQ24	IC1570 45pin	IC1501 184pin	100Ω± 5%
38	MDQ25	IC1570 47pin	IC1501 188pin	100Ω± 5%
39	MDQ26	IC1570 48pin	IC1501 190pin	100Ω± 5%
40	MDQ27	IC1570 50pin	IC1501 192pin	100Ω± 5%
41	MDQ28	IC1570 51pin	IC1501 196pin	100Ω± 5%
42	MDQ29	IC1570 53pin	IC1501 199pin	100Ω± 5%
43	MDQ30	IC1570 54pin	IC1501 201pin	100Ω± 5%
44	MDQ31	IC1570 56pin	IC1501 204pin	56Ω±5%
45	MCK	IC1570 68pin	IC1501 225pin	22Ω±5%
46	XWE	IC1570 17pin	IC1501 232pin	56Ω±5%
47	XCAS	IC1570 18pin	IC1501 242pin	56Ω±5%
48	XRAS	IC1570 19pin	IC1501 239pin	56Ω±5%
49	XCSM	IC1570 20pin	IC1501 238pin	56Ω±5%
50	DQM0	IC1570 16pin	IC1501 243pin	56Ω±5%
51	DQM1	IC1570 71pin	IC1501 246pin	56Ω±5%
52	DQM2	IC1570 28pin	IC1501 208pin	56Ω±5%
53	DQM3	IC1570 59pin	IC1501 207pin	56Ω±5%
54	BA0	IC1570 22pin	IC1501 234pin	56Ω±5%
55	BA1	IC1570 23pin	IC1501 237pin	56Ω±5%


CN1901
1 PGND
2 PGND
3 PGND
4 DGND
5 DGND
6 DGND
7 DGND
8 DGND
9 (DTR)
10 VD
11 VD
12 VD
13 DDCONF
14 VCC15(33)
15 VCC15(33)
16 VCC15(33)
17 VCC15(33)
18 VCC33
19 VCC33
20 SRVDD
21 VDD33
22 AMUTE
23 VCONTB
24 EMPH
25 VCONTA
26 XRESET
27 IRQPWR
28 HSTCMD
29 SLVSTS
30 MCKENA
31 BMUTE
32 SPD_SW1
33 SPD_SW2
34 AGND
35 ANALOG ROUT
36 AGND
37 ANALOG LOUT
38 VIDEO GND
39 VIDEO OUT
40 (WAKEUP)
AVCC5
COMPO
COMPOSIT
Q1551 2SA1576
GNDV
GNDA
DAC1・2・3
DAC4・5
DV1.3
IC1501
MN35104UB
IC1570
K4S283232E-TC75
SDRAM
GNDD

VCC15:MAX800mA TYP660mA

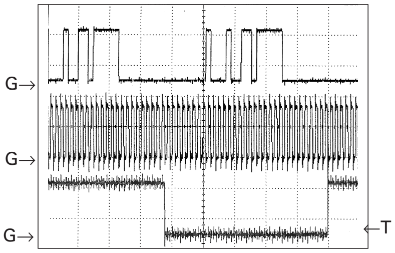
VCC33:MAX50mA TYP35mA

AVCC33:MAX200mA TYP180mA

Circuit Diagram ③

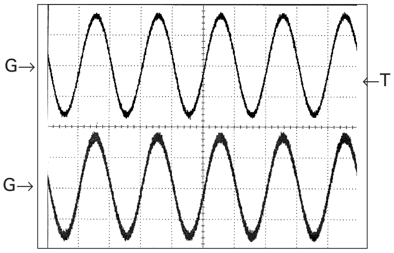
Note: Reference voltage VHALF : 1.65V

CH1: AOUT0
CH2: SRCKAV
CH3: LRCKAV
2V/div. 2µs/div.



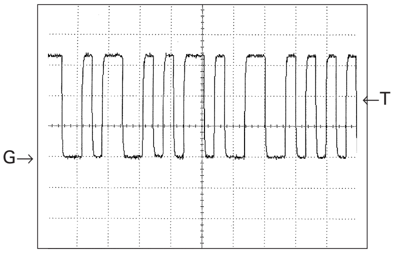
Waveform1

CH1: LO
CH2: RO
1V/div. 500µs/div.



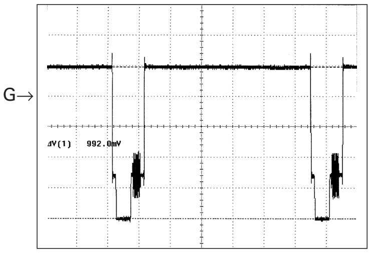
Waveform2

CH1: IEC958 1V/div. 500ns/div.



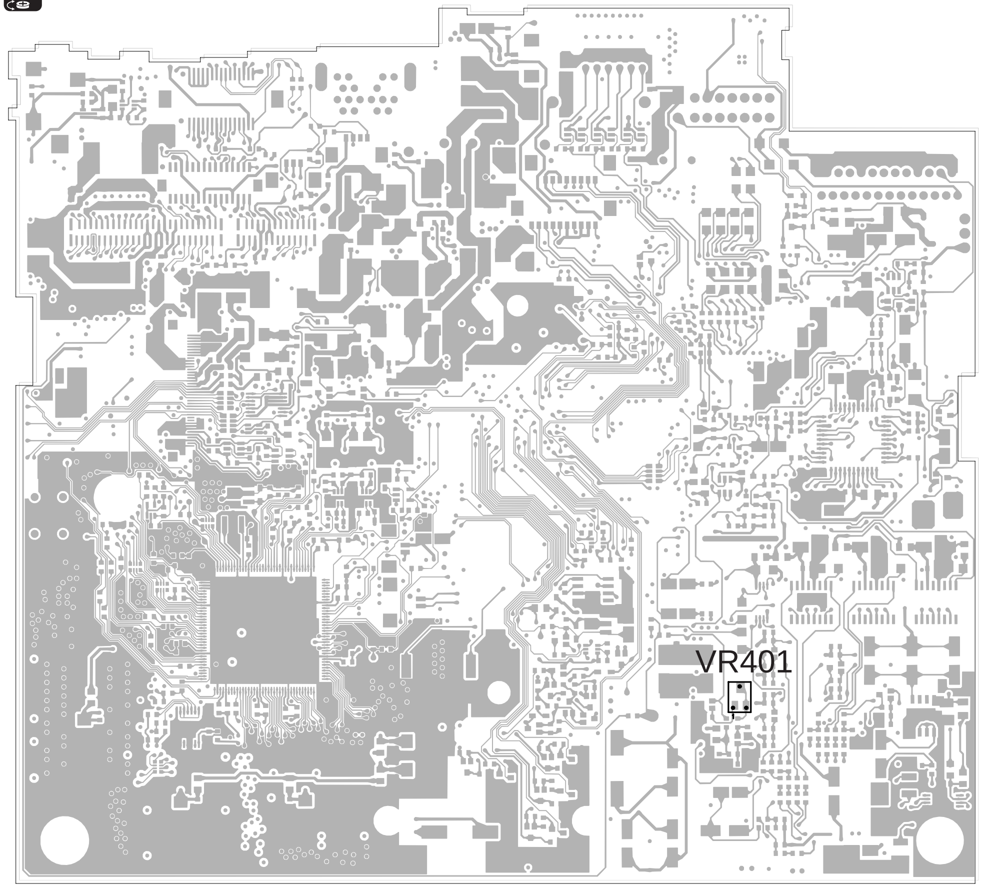
Waveform3

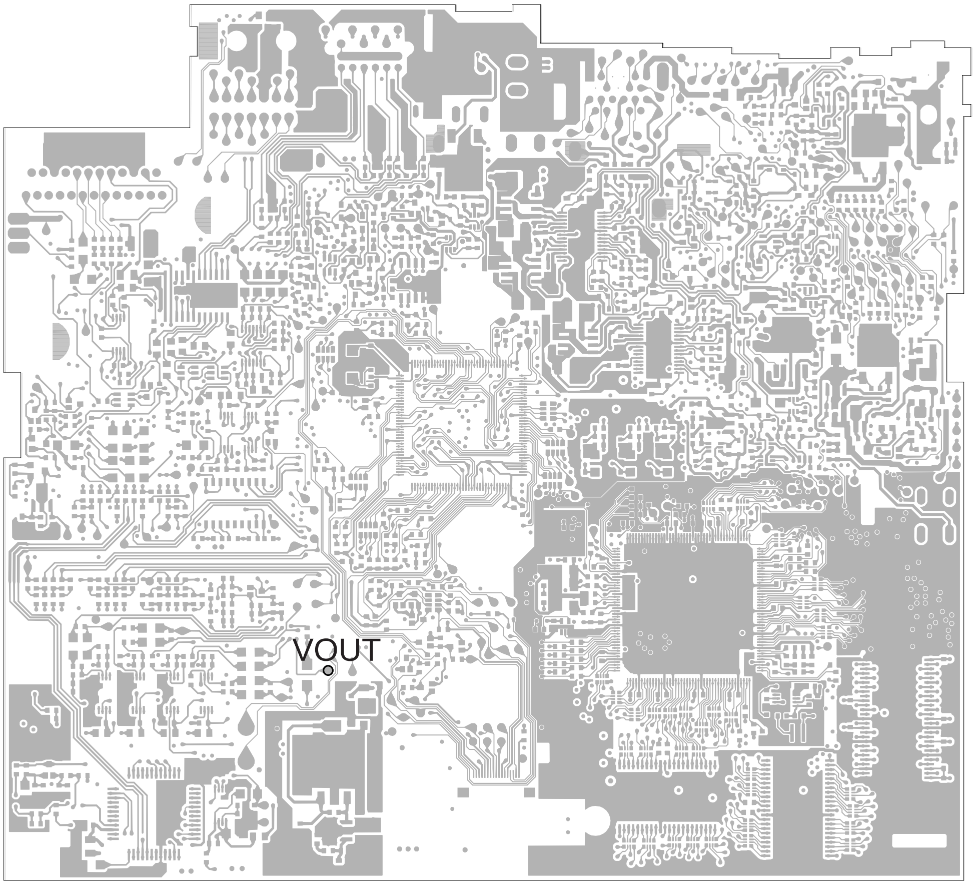
CH1: COMPO 200mV/div. 10µs/div.
[White 100% output]



Waveform4

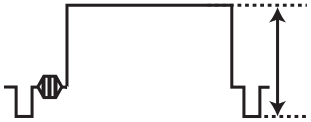
6.3 MOTHER PCB ADJUSTMENT





Notes:
1) When the power supply for TC90A64AF-P (IC4001) is OFF, be careful not to apply any voltage to its terminals except for IIC lines(SDA and SCL). The IIC lines can accept a maximum of 5V.

No	Adjustment item	Input	Measuring point	Adjusting point	Measuring method and specs.	Remarks
1	3.3V power supply verification	Apply 14.4V to TP PWRV1 and TP PWRV2.	C4852 hot side (TP V33)	—	V33 = 3.3V 0.3V	
2	2.5V power supply verification	Apply 14.4V to TP VVI.	(TP V25)	—	V25 = 2.5V 0.2V	
3	5V power supply verification	Apply 14.4V to TP VVI.	(TP V5)	—	V5 = 5.0V 0.3V	
4	8V power supply verification	Apply 14.4V to TP VVI.	(TP V8)	—	V8 = 8.0V 0.6V	
5	18.5V power supply verification	Apply 14.4V to TP VVI.	(TP V18)	—	V18 = 18.5V 0.8V	
6	-12V power supply verification	Apply 14.4V to TP VVI.	(TP VM12)	—	VM12 = -12.0V 0.6V	

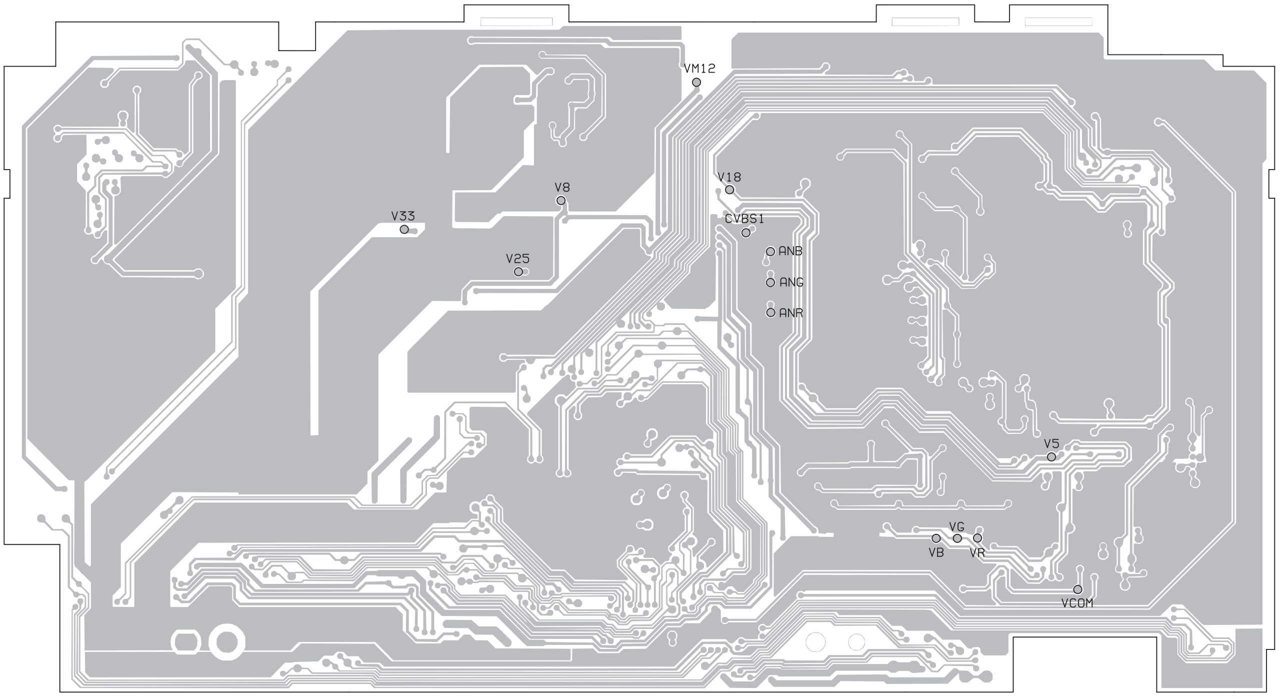
Step	Mother PCB adjustment	Mode	Input (input test pin,specs, other conditions)	Output (measuring point, waveform)	Measuring instruments	Specs	Adjusting point
7	Main video level	AV	Input test pin: MS-3V1 ····100 IRE (white 100%), 1.0Vp-p, (input via 75ohms) TP20····VIDEO GND Note : A monitor is the connected state.	Measuring point: VOUT or V2 	Oscilloscope	1.35V ± 0.05Vp-p Measure between the sync tip and 100 IRE (top wave). Symptoms with poor adjustment. Over lever : Luminance is too high. Under level : Luminance is too low.	VR401

6.4 MONITOR PCB ADJUSTMENT

Notes: Flicker adjustment is needed when monitor PCB is exchanged.

● Adjustment Point

Monitor PCB (Side B)

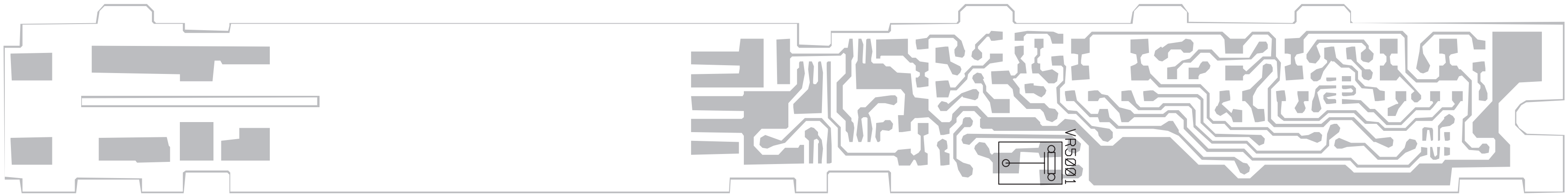

VM12
V18
V8
V33
CVBS1
ANB
V25
ANG
ANR
V5
VG
VB
VR
VCOM

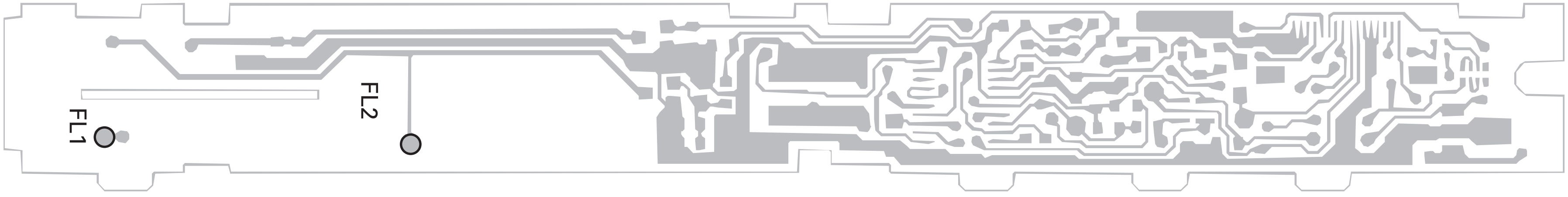
Notes:
1) When the power supply for TC90A64AF-P is OFF, be careful not to apply any voltage to its terminals except for IIC lines(SDA and SCL). The IIC lines can accept a maximum of 5V.
2) In the following table, SA**h is a sub-address of TC90A64AF-P.

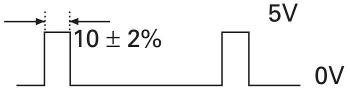
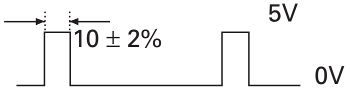
No	Adjustment item	Input	Measuring point	Adjusting point	Measuring method and specs.	Remarks
1	Aging	Any input signal	—	—	Keep the unit in the operation mode for 30 minutes or longer.	
2	Flicker	Input a signal for alternate white and black lines to TP ANR, TP ANG and TP ANB.	Screen	Register setting of SA22h D15 - 8	Adjust so that the flickers become minimum in all	If it input a signal for alternate white into TP CVBS1, it is possible. The luminance level of the input signal: 50%. In the flicker adjustment mode, COM DC can be used as the adjusting point.

•Flicker adjustment has been deviated The images flicker.
•Signal for flicker adjustment
EEPROM setting mode
[Operations]
To enter the setting mode, while keeping the TP1420 terminal(IC1401 pin25) at "Low", turn reset the micro computer. To switch between the adjustment modes, click the joystick.
Flicker adjustment mode
Line adjustment 1 mode
Line adjustment 2 mode
Dimmer parameter setting mode
[↑ ↓] button: Used to select a desired adjustment item in each mode
[← →] button: Used to adjust the selected item
[↑ ↓] button: Flicker adjustment mode
[BAND/ESC] button: alternate white and black lines
[← →] button: Adjust so that the flickers become minimum in all

6.5 INVERTER PCB ADJUSTMENT





No	Adjustment item	Input signal	Measuring point	Adjusting point	Measuring method and specs.	Remarks
1	BACK LIGHT DRIVE FREQUENCY	Apply 14.4V ± 0.2V to TP VPPFL1 Apply 5.0V to TP DIMDTY TP GNDFL1 and TP INVPUL : GND	TP:FL1,FL2	VR 5001	48.0 ± 0.1kHz	100k ohms is connected between TP FL1 and TP FL2. It acts as the monitor of the waveform after potential. Don't acts as the monitor of the TP FL2 directly. (there is a possibility that a measuring instrument may be destroyed, for high voltage.) Out of spec., when frequency change of following may become impossible.
2	FREQUENCY CHANGE CHECK	Apply wave of 98.0V ± 1kHz to TP INVPUL 	TP:FL1,FL2		49.0 ± 0.5kHz	It checks that the waveform after potential is set to 49 kHz
3	FREQUENCY CHANGE CHECK	Apply wave of 104.0V ± 1kHz to TP INVPUL 	TP:FL1,FL2		52.0 ± 0.5kHz	It checks that the waveform after potential is set to 52 kHz

6.6 MONITOR TEST MODE

●EEPROM setting mode

[Operations]

To enter the setting mode, while keeping the EPRTEST terminal(probe land EPRTSTA) at "Low", turn reset the monitor micro computer. To switch between the adjustment modes, click the joystick.

Flicker adjustment mode
Line adjustment 1 mode
Line adjustment 2 mode
Dimmer parameter setting mode

[↑ ↓] button: Used to select a desired adjustment item in each mode
[←→] button: Used to adjust the selected item

Notes:

1) The setting values are written in the EEPROM,and then the read-out data is displayed on the screen. WRITE and READ operations are processed by the block data of 16 bits. The total bits for the settings depend on adjusting items.

2) For CS (Check Sum) items, when the settings are changed, the CS value is written in 8 bits by applying the exclusive OR (XOR). The CS value is first written in the EEPROM, and then the read-out data is displayed. If the written data is different from the read-out data, the letter color for the read-out data is changed.

● Memory items and addresses on the EEPROM(S-93C46BR01-J8T1)

Memory array	EEPROM address	Bit15	Bit14	Bit13	Bit12	Bit11	Bit10	Bit9	Bit8	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Bank 1	00H	Dimmer external light threshold (high)								Dimmer external light threshold (low)							
	01H	Backlight output (upper limit)								Backlight output (lower limit)							
	02H	Common reverse output center (COM DC)								Don'tcare		Common reserve output amplitude (COM AMP) PIP SA:22h[B7-2]					
	03H	Don'tcare		Output clamp DC (RGB BIAS) PIP SA:23h[B13-8]						Don'tcare				γ 0 inflection point (GAMMA 0) PIP SA:23h[B3-0]			
	04H	γ 3 inflection point (GAMMA 3) PIP SA:24h[B15-12]				γ 2 inflection point (GAMMA 2) PIP SA:24h[B11-8]				Don'tcare			γ 1 inflection point (GAMMA 1) PIP SA:24h[B7-3]				
	05H	Don'tcare	Output sub contrast R (SUB CON R) PIP SA:26h[B15-9]							Don'tcare	Output sub contrast B (SUB CON B) PIP SA:26h[B7-1]						
	06H	Sub brightness R after γ circuit (SUB BRI R) PIP SA:39h[B15-12]				Sub brightness B after g circuit (SUB BRI B) PIP SA:39h[B11-8]				Don'tcare							
	07H	Don'tcare								Don'tcare				Clock phase adjustment (DOT CLK) PIP SA:2Ah[B3-0]			
	08H	Don'tcare								Don'tcare						Sharpness (SHARPNESS) PIP SA:05h[B2-1]	
	09H	Touch panel X coordinates 1								Touch panel Y coordinates 1							
	0AH	Touch panel X coordinates 2								Touch panel Y coordinates 2							
	0BH	Touch panel X coordinates 3								Touch panel Y coordinates 3							
	0CH	Touch panel X coordinates 4								Touch panel Y coordinates 4							
	0DH	Touch panel X coordinates 5								Touch panel Y coordinates 5							
	0EH	Touch panel X coordinates 6								Touch panel Y coordinates 6							
	0FH	Touch panel X coordinates 7								Touch panel Y coordinates 7							
	10H	Touch panel X coordinates 8								Touch panel Y coordinates 8							
	11H	Touch panel X coordinates 9								Touch panel Y coordinates 9							
	12H	Touch panel X coordinates 10								Touch panel Y coordinates 10							
	13H	Touch panel X coordinates 11								Touch panel Y coordinates 11							
	14H	Touch panel X coordinates 12								Touch panel Y coordinates 12							
	15H	Touch panel X coordinates 13								Touch panel Y coordinates 13							
	16H	Touch panel X coordinates 14								Touch panel Y coordinates 14							
	17H	Touch panel X coordinates 15								Touch panel Y coordinates 15							
	18H	Touch panel X coordinates 16								Touch panel Y coordinates 16							
	19H	Touch panel X coordinates 17 (Not used)								Touch panel Y coordinates 17 (Not used)							
	1AH	Outer most Xmin								Outer most Ymin							
	1BH	Outer most Xmax								Outer most Ymax							
	1CH	Check sum address															
	1DH	Don'tcare								Common reverse output center(Reference)							
	1EH	Don'tcare												Clock phase adjustment initial value			
	1FH	Don'tcare															

Memory array	EEPROM address	Bit15	Bit14	Bit13	Bit12	Bit11	Bit10	Bit9	Bit8	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Bank 2	20H	External light of dimmer adjustment(H)								Back light of dimmer adjustment(H)							
	21H	External light of dimmer adjustment(M)								Back light of dimmer adjustment(M)							
	22H	External light of dimmer adjustment(L)								Back light of dimmer adjustment(L)							
	23H-3FH	Don'tcare															

● EEPROM initial value

Item	Meaning	initial value(DEC)	initial value(hex)
COM_DC	Common reverse output center	140	8C
COM_AMP	Common reverse output amplitude	30	1E
RGB_BIAS	Out clamp DC	00	00
GAMMA0	γ 0	02	02
GAMMA3	γ 3	04	04
GAMMA2	γ 2	04	04
GAMMA1	γ 1	19	13
SUB_CON_R	Output sub contrast R	64	40
SUB_CON_B	Output sub contrast B	64	40
SUB_BRI_R	Sub brightness R after γ circuit	08	08
SUB_BRI_B	Sub brightness B after γ circuit	08	08
DOT_CLK	Clock phase adjustment	07	07
SHARPNESS	Sharpness	03	03
BL_MAX	Back light output (Max.)	196	C4
BL_MIN	Back light output (Min.)	91	5B
REF_HIGH	Dimmer (H)	192	C0
REF_LOW	Dimmer (L)	96	60
LUM_HIGH	External light (H)	226	E2
LUM_MID	External light (M)	135	87
LUM_LOW	External light (L)	82	52
BL_HIGH	Back light (H)	196	C4
BL_MID	Back light (M)	196	C4
BL_LOW	Back light (L)	104	68

Touch panel initial value(Before a calibration)

TOUCH_X01-TOUCH_X17	Touch panel compensation (X)	00	00
TOUCH_Y01-TOUCH_Y17	Touch panel compensation (Y)	00	00
GAISYU_MIN_X	Outermost X (Min.)	56	38
GAISYU_MAX_X	Outermost X (Max.)	243	F3
GAISYU_MIN_Y	Outermost Y (Min.)	63	3F
GAISYU_MAX_Y	Outermost Y (Max.)	234	EA

[Displays in each mode]
In the following figures, the letters and numbers surrounded by a large square are for OSD examples.
On the screen, the adjustment names and the settings (or written data) are listed.
The settings (or written data) will change when some adjustments are made in each mode.
(The following examples show the maximum values.)

(1) Flicker adjustment mode

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Common reverse output center	[0 - 255]	COM DC	140		

Notes: The CONTRAST data is [88], and used as refference data for other adjustment items.

(2) Line adjustment 1 mode

Adjustment item	Adjustment item	Adjustable range	Settings or written data (DEC)		
Bright (SA22: B7-2)	[0 - 63]	BRIGHT	30		LINE1
Contrast (SA25: B7-1)	[0 - 127]	CONTRAST	88		
Common reverse output center	[0-255]	COM DC	140		
Common reverse output amplitude	[0-63]	COM AMP	30		
Output clamp DC	[0-63]	RGB BIAS	0		
γ0 inflection point	[0-15]	GAMMA0	2		
γ3 inflection point	[0-15]	GAMMA3	4		
γ2 inflection point	[0-15]	GAMMA2	4		
γ1 inflection point	[0-31]	GAMMA1	19		
				CS	AFC3

Notes:
1) CONTRAST data
The CONTRAST data is adjustable, and used as reference data for other adjustment items, which is not memorized in the EEPROM.
2) BRIGHT and COM AMP data
The BRIGHT and COM AMP adjustments are made by using the same 2-screen IC register (SA22h B7-2: common reverse output amplitude).
Therefore, adjusting one of the data will change the other one.

Notes: The CONTRAST data is [88], and used as refference data for other adjustment items,

(3) Line adjustment 2 mode

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Bright (SA22: B7-2)	[0 - 63]	BRIGHT	30		LINE2
Contrast (SA25: B7-1)	[0 - 127]	CONTRAST	88		
Output sub contrast R	[0 - 127]	SUB CON R	64		
Output sub contrast B	[0 - 127]	SUB CON B	64		
Sub brightness R after γ circuit	[0 - 15]	SUB BRI R	8		
Sub brightness B after γ circuit	[0 - 15]	SUB BRI B	8		
Clock phase adjustment	[0 - 15]	DOT CLK	7		
Sharpness	[0 - 3]	SHARPNESS			
				CS	AFC3

Notes:

1) CONTRAST data

The CONTRAST data is adjustable, and used as reference data for other adjustment items, which is not memorized in the EEPROM.

2) SUB BRI R and SUB BRI B data

The displayed value or EEPROM written data is different from the setting value for the 2-screen IC register (TC90A64AF : IC1).

(Before displayed on the screen, the setting value is converted via some software.)

Displayed value (adjusting value) (DEC)	E2PROM written value. (DEC)	2-screen IC register setting (BIN)	
15	15	0111	(MAX)
14	14	0110	
. .	. .	. .	
9	9	0001	
8	8	0000	(TIP)
7	7	1111	
. .	. .	. .	
1	1	1001	
0	0	1000	(MIN)

(4) Dimmer parameter setting mode

Adjustment item	Adjustment item	Adjustable range	Settings or written data (DEC)		
Backlight output (MAX)	[0 - 255]	BL MAX	196		DIMMER
Backlight output(MIN)	[0 - 255]	BL MIN	91		
Dimmer threshold (high)	[0 - 255]	REF H	192		
Dimmer threshold (low)	[0 - 255]	REF L	96		
External light point (high)	[0 - 255]	LUM H	226		
External light point (middle)	[0 - 255]	LUM M	135		
External light point (low)	[0 - 255]	LUM L	82		
Backlight point (high)	[0 - 255]	BL H	196		
Backlight point (middle)	[0 - 255]	BL M	196		
Backlight point (low)	[0 - 255]	BL L	104	CS	AFC3

Note: The dimmer point data is memorized in the EEPROM, but not treated as a CS item. It's because the settings are adjustable by the user.

6.7 DOT CLOCK ADJUSTMENT

● Dot Clock Adjustment Mode

[Operations]

· [Dot Clock adjustment mode] starting procedure
  Reset start while pressing the [ATT] and [SOURCE] Keys together.
· [Dot Clock adjustment mode] cancellation Monitor's microcomputer OFF.
· The operation after this should use remote control.
· [↓↑] button : Used to select a desired adjustment item in each mode.
· [←→] button : Used to adjust the selected item.

[EEPROM : S-93C46BR01-J8T1]

The setting values are written in the EEPROM,and then the read-out data is displayed on the screen.
WRITE and READ operations are processed by the block data of 16 bits.

[Display]

In the following figures,a large square are for OSD examples.

Dot Clock adjustment mode

Adjustment item	Adjustment range	Display	Setting or written data (DEC)		
Clock phase adjustment	[0-15]	DOT CLK	15		
''(initial)	[0-15]	[FACTORY	7	]	
Common reverse output center	[0-255]	COM DC	255		
Common reverse output center adjustment	[0-255]	[FACTORY	140	]	
initial					

* CS(Check Sum)display is not performed.

6.8 TOUCH PANEL TEST MODE

1. Touch panel calibration

1.1 To enter the touch panel calibration mode
While pressing the ATT and BACK keys on the main unit, reset and start the unit.
1.2 Adjustment outline
1) Touch panel effective range check
2) Touch panel 16-point calibration
The touch panel calibration consists of the above two checks.
When finishing the above checks, exit from the calibration mode by turning off the ACC.

1.3 Adjustment screen menu
Top menu
1) Setup TP effective range
The effective range (outer limit) of the touch panel is obtained.
2) Setup calibration
By touching the 16 points on the screen (excluding the last one for finalization), whole screen calibration will be performed.
* Pressing any screen points far from the (+) marks will not allow you to proceed to the next (+) point.
* To stop the calibration, press the ESC key .
3) TP coordinates test (Not used)
For each (+) mark, the OSD coordinates, AD values, and coordinates before and after correction are displayed.
4) Calibration test
For touched points, coordinates before and after correction are displayed.
5) Data initialize
The range and the calibration data are returned to an initial value.

```
  0123456789012345678901234567890
 +-------------------------------+
0|  ### TOUCH-PANEL TEST ###      |0
1|                               |1
2|    1. Setup TP effective range|2
3|    2. Setup calibration       |3
4|    3. TP coordinates test     |4
5|    4. Calibration test        |5
6|    5. Data initialize         |6
7|[ENTER]        Menu selection  |7
8|[ / ]          Cursor movement |8
9|[ACC OFF]      End of test     |9
 +-------------------------------+
```

1.4 Cautions on adjustment

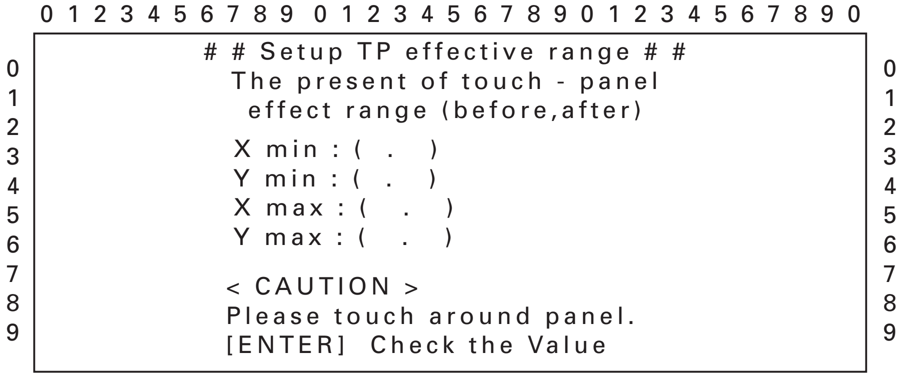
At the TP effective range check, never use a pointed thing like nails to trace the edge of the screen. Use a round-headed thing (R1.6 or more) and push the screen softly to prevent the screen from being damaged.

1.5 Detailed adjustment procedures
On the main unit or the remote control, use the UP/DOWN keys to select the check item from the menu,
and then press the ENTER key
When finishing both checks, turn off the ACC to exit from the calibration mode.

(1) Setup TP effective range

The checking data for the edge of the TP screen is memorized in the EEPROM.

[Display]

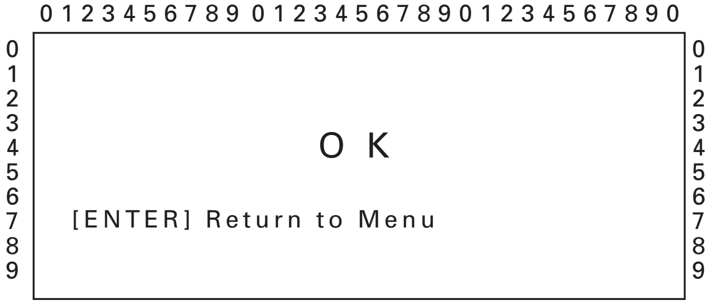

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0
0 1 2 3 4 5 6 7 8 9

```
## Setup TP effective range ##
 The present of touch - panel
  effect range (before,after)
 X min : (  .  )
 Y min : (  .  )
 X max : (  .  )
 Y max : (  .  )
< CAUTION >
Please touch around panel.
[ENTER]  Check the Value
```

* The range (before) is the data that has been stored in the EEPROM before calibration.

* The range (after) is the data that will be stored after calibration. (Default: min 120, max 180)

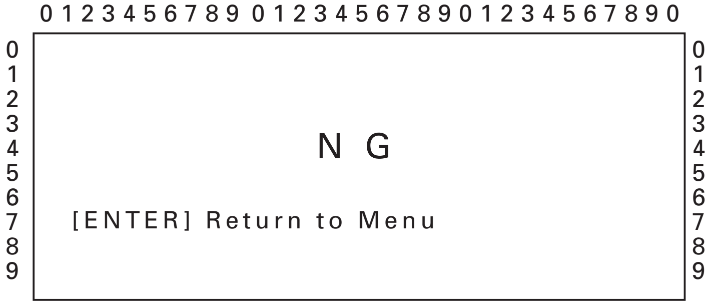
Checking result - OK


0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0
0 1 2 3 4 5 6 7 8 9

```
            O K

[ENTER] Return to Menu
```

Checking result - NG

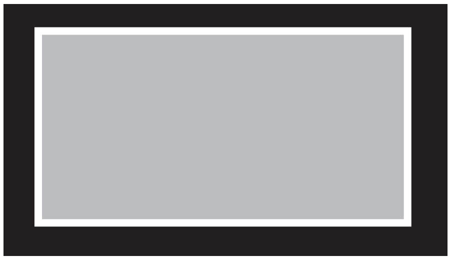

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0
0 1 2 3 4 5 6 7 8 9

```
            N G

[ENTER] Return to Menu
```

[Adjustment steps]

1) Trace the edge of the screen along the monitor resin frame with a round-headed thing (R1 or more) to obtain the coordinates (as shown by a white line in the right figure).



* The black frame is the outer resin frame of the monitor.

Caution:

Never use a pointed thing like nails when tracing the edge of the screen. Use a round-headed thing (R1 or more) and push the screen softly to prevent the screen from being damaged

2) Press the ENTER key on the main unit or remote control.

If the checking result is within the allowable range, "OK" will be displayed in the center of the screen. If not, "NG" will be displayed.

* When the checking result exceeds the default values by 10% or more, "NG" is displayed on the screen.

3) To return to the top menu, press the ENTER key on the main unit or remote control.

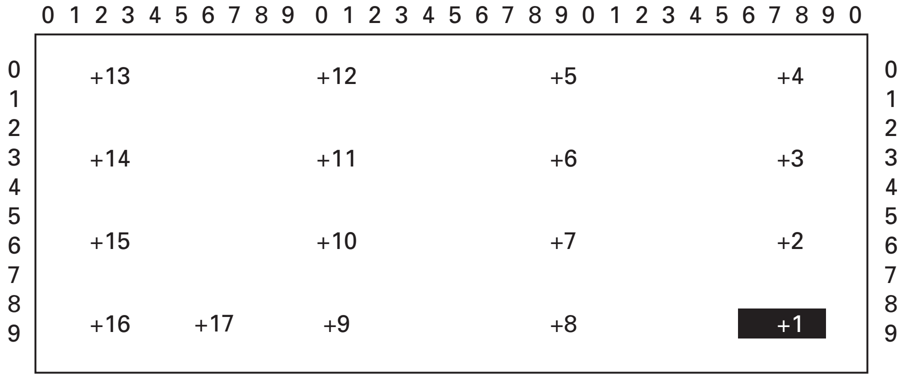
Default data list

Coordinates	Min.	Max.
X	56	243
Y	63	234

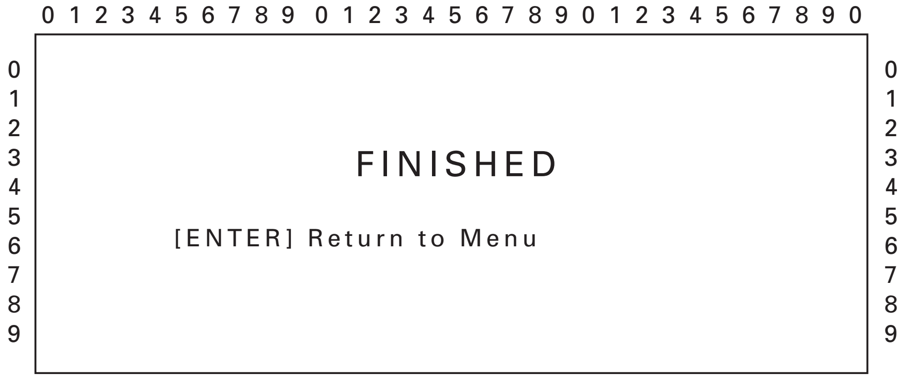
(2) Setup calibration

By touching the (+) marks on the screen one by one, their calibration results are memorized in the EEPROM.

[Display]


0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0
0 1 2 3 4 5 6 7 8 9
+13
+12
+5
+4
+14
+11
+6
+3
+15
+10
+7
+2
+16
+17
+9
+8
+1

* Pressing any screen points far from the (+) marks is ignored.


0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0
0 1 2 3 4 5 6 7 8 9

FINISHED

[ENTER] Return to Menu

* In the above figure, the numbers after (+) (from 1 to 17) shows the order where the cursor moves.
* When the 17th (+) mark is pressed, "FINISHED" will be displayed.

[Adjustment steps]

1) Push the 16 (+) marks one by one by following the cursor's movement. (The plus marks appear in turn on the screen. When you push one properly, the next mark will be displayed.)

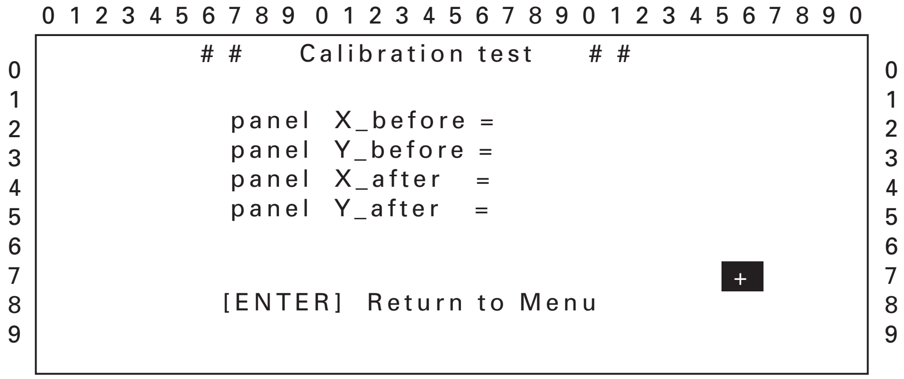
2) Lastly, push the 17th (+) mark. "FINISHED" will be displayed in the center of the screen.

3) To return to the top menu, press the ENTER key on the main unit or remote control.
* If you press the ESC key during adjustment, the screen mode will return to the top menu without any adjustment results stored.

(3) Calibration test

For touched points, coordinates before and after correction are displayed.

[Display]



```
## Calibration test ##

panel X_before =
panel Y_before =
panel X_after  =
panel Y_after  =
                                   +
[ENTER] Return to Menu
```

* The 16 (+) marks are displayed on a screen.

[Adjustment steps]

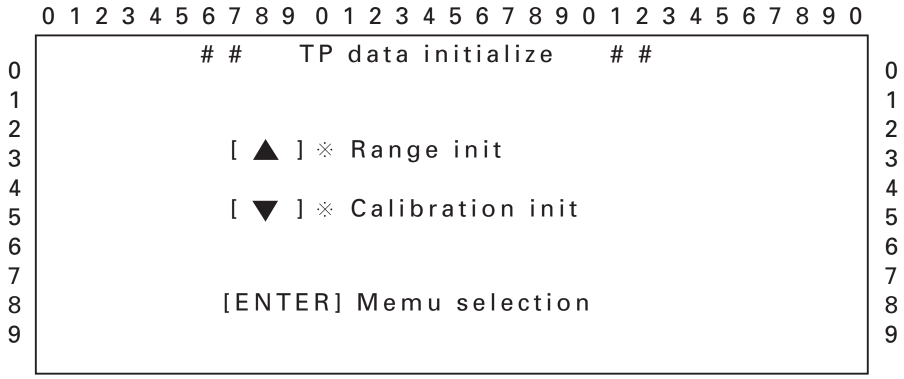
1) For touched points, coordinates before and after correction are displayed.

2) To return to the top menu, press the ENTER key on the main unit or remote control.

(4) TP data initialize

The range and the calibration data are returned to an initial value.

[Display]



```
## TP data initialize ##

[ ▲ ] ※ Range init

[ ▼ ] ※ Calibration init

[ENTER] Memu selection
```

※ : Setup complete.
The mark will disappear when initialization is complete.

[Adjustment steps]

1) [▲] : The range data initialize.
[▼] : The calibration data initialize.

2) To return to the top menu, press the ENTER key on the main unit or remote control.

6.9 FREQUENCY CHECK FOR CLOCK

1. PCL output

In the normal operation mode (with the detachable panel installed, the ACC switched ON, the standby mode cancelled), shift the TESTIN terminal (Pin56) to H. The clock signal is output from the CLKOUT terminal (Pin 36).

The frequency of the clock signal is 18.874368MHz±754Hz that is the fundamental frequency.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

● Removing the Grille Assy (Fig.1)

1 Remove the two screws and then remove the Holder.
Disconnect the connector.

2 Remove the two screws and then remove the Grille Assy.

● Removing the Case

3 Remove the five screws.(Fig.1)

4 Remove the screw.(Fig.1)

5 Remove the two screws and then remove the Case.(Fig.1)

Note) Inside the product there is a flexible substrate that connects the Case and the Bracket.
Be very careful and do not give it a strong pull when removing the Case, otherwise it may be torn.

6 Remove the four screws. (Fig.2)

Disconnect the connector and then remove the Bracket. (Fig.2)
Remove the Case.(Fig.1)

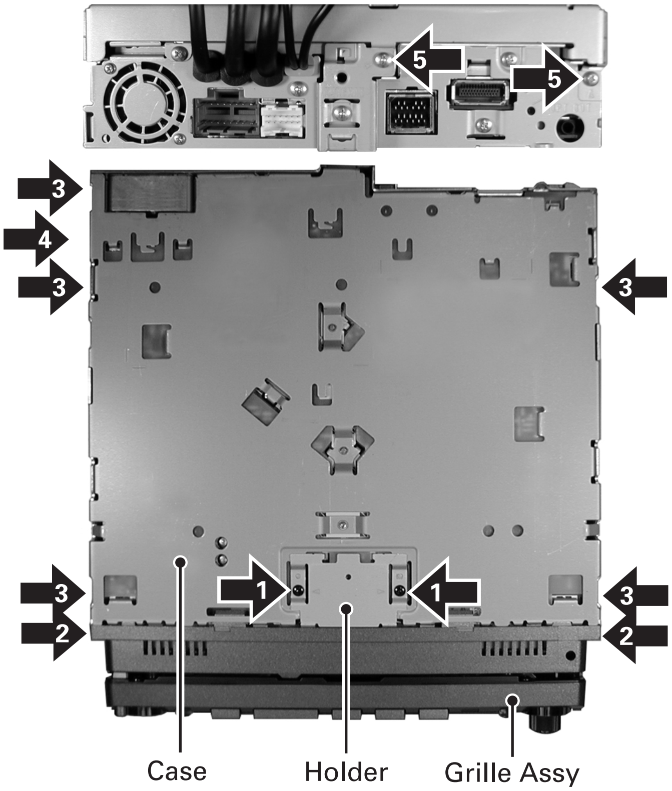


Fig.1

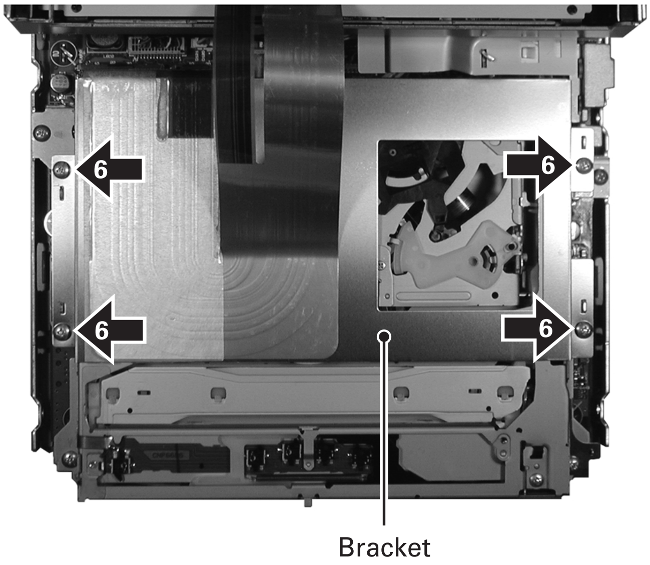


Fig.2

● Removing the DVD Mechanism Module (Fig.3)

1 Remove the four screws.

Disconnect the connector and then remove the DVD Mechanism Module.

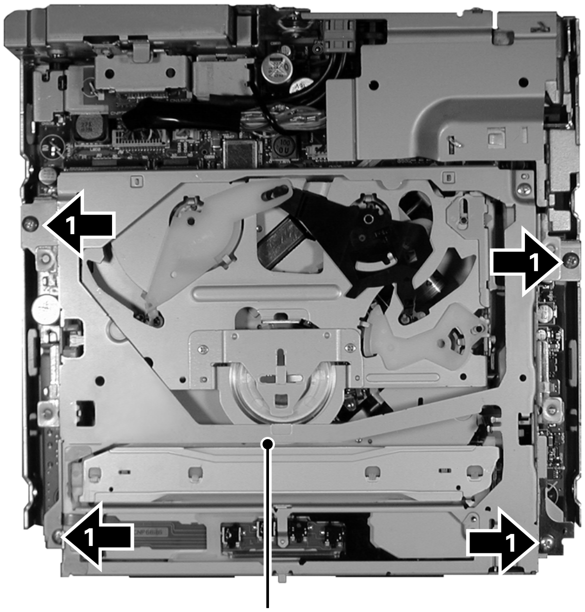

1
1
1
1
DVD Mechanism Module

Fig.3

● Removing the Tuner Unit (Fig.4)

1 Straighten the tabs at two locations indicated.

2 Remove the screw and then remove the Holder.

3 Remove the two screws.

Disconnect the connector and then remove the Fan Motor.

4 Remove the two screws.

5 Remove the four screws and then remove the Bracket.

6 Straighten the tabs at five locations indicated.

7 Remove the screw and then remove the Tuner Unit

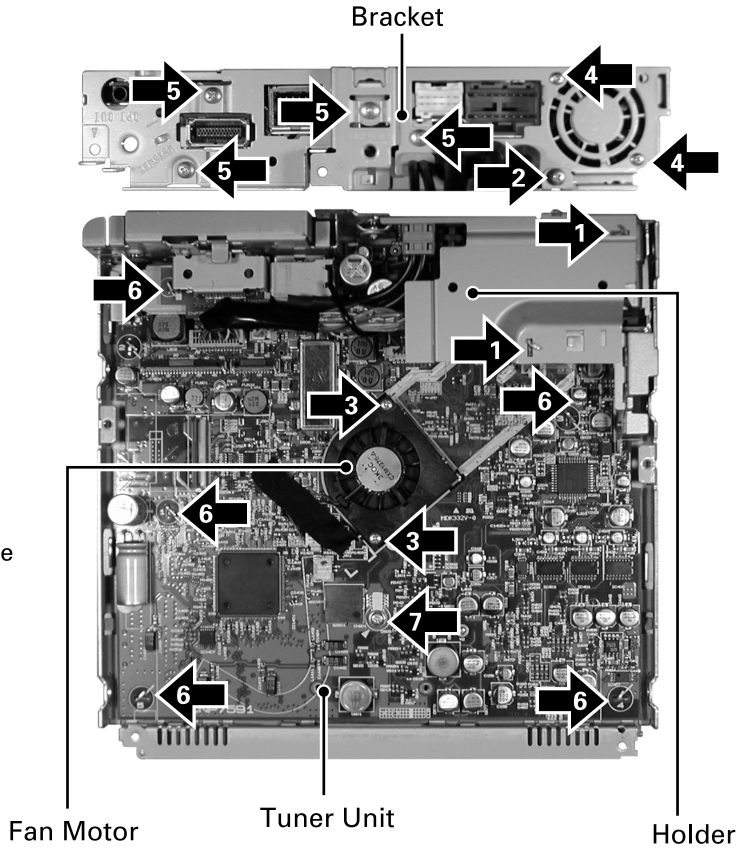

Bracket
5
5
5
5
4
4
2
1
1
6
6
6
6
6
3
3
7
Fan Motor
Tuner Unit
Holder

Fig.4

● Removing the Case (Fig.5)

1 Remove the two screws and then remove the Lever.

2 Remove the three screws and then remove the Holder.

3 Disconnect the connector.

4 Remove the screw.

5 Remove the five screws and then remove the Case.

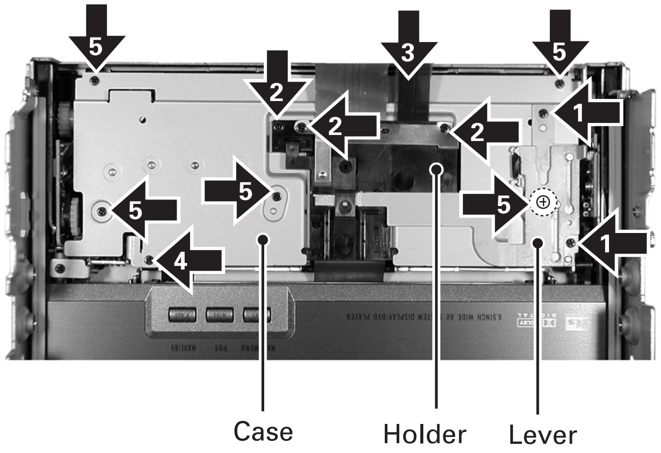

5
3
5
2
2
2
1
5
5
5
1
4
Case
Holder
Lever

Fig.5

● Removing the Display Assy (Fig.6)

1 Remove the screw.

Disconnect the connector and then remove the Motor Unit.

2 Remove the two screws and then remove the two Holders.

3 Pull out the Display Assy in the arrow indicated direction.

Note) When reassembling, hold the switch down with tweezers or the like and put the Display Assy back to the Chassis. Otherwise, the switch may be damaged and not function properly.

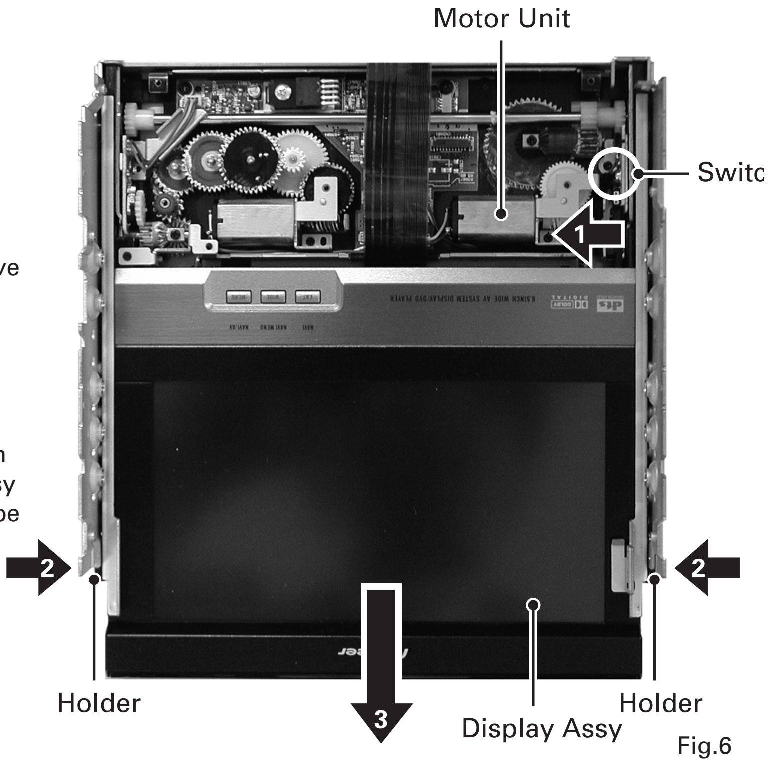

Motor Unit
Switc
1
2
2
3
Holder
Display Assy
Holder

Fig.6

● Removing the Main Unit (Fig.7)

1 Remove the screw and then remove the Bracket.

2 Remove the four screws and then remove the Shaft Unit.

3 Remove the three screws.

Disconnect the connector and then remove the Main Unit.

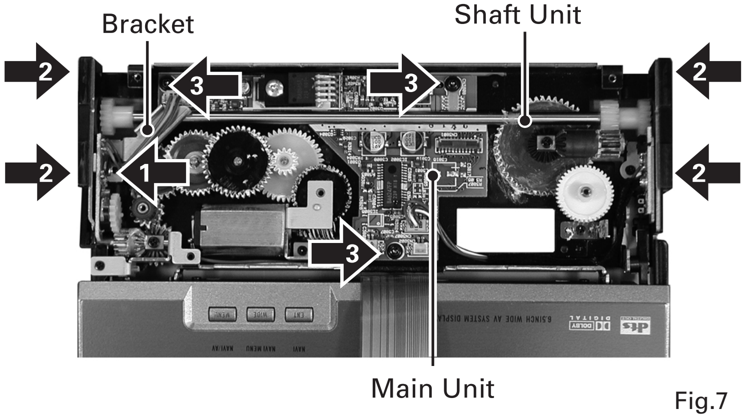

Bracket
Shaft Unit
2
3
3
2
2
1
2
3
Main Unit

Fig.7

● Removing the Display Assy (Fig.8)

1 Remove the two screws and then remove the Holder.

2 Remove the three screws.

3 Remove the two screws and then remove the Cover Unit.

4 Remove the four screws.

Disconnect the connector and then remove the Display Assy.

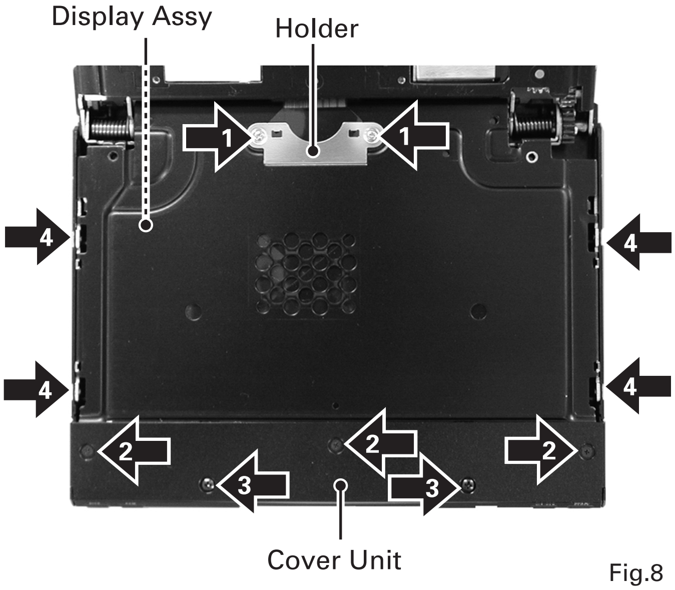

Display Assy
Holder
1
1
4
4
4
4
2
2
2
3
3
Cover Unit

Fig.8

● Removing the Monitor PCB (Fig.9)

1 Straighten the tabs at two locations indicated.

2 Remove the three screws.

Disconnect the connector and then remove the Monitor PCB.

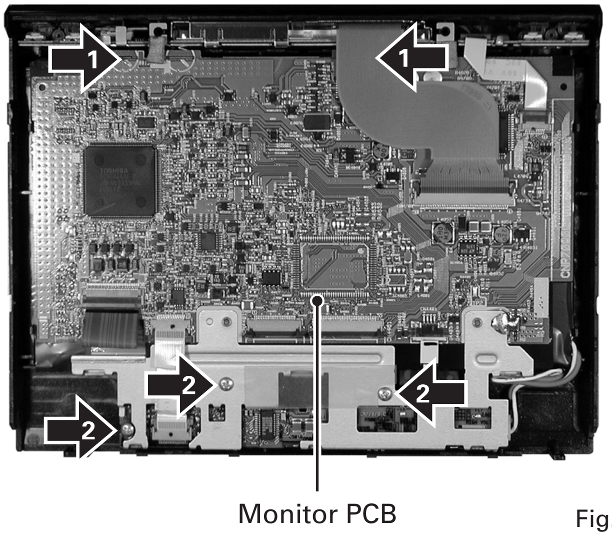
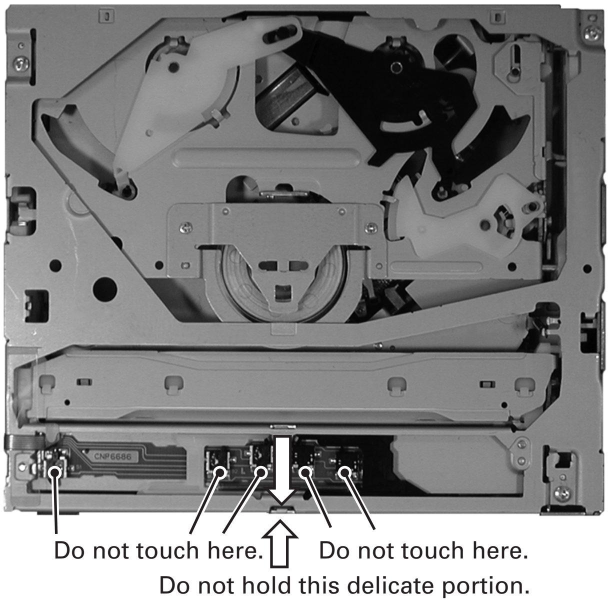

1
1
2
2
2
Monitor PCB

Fig.9

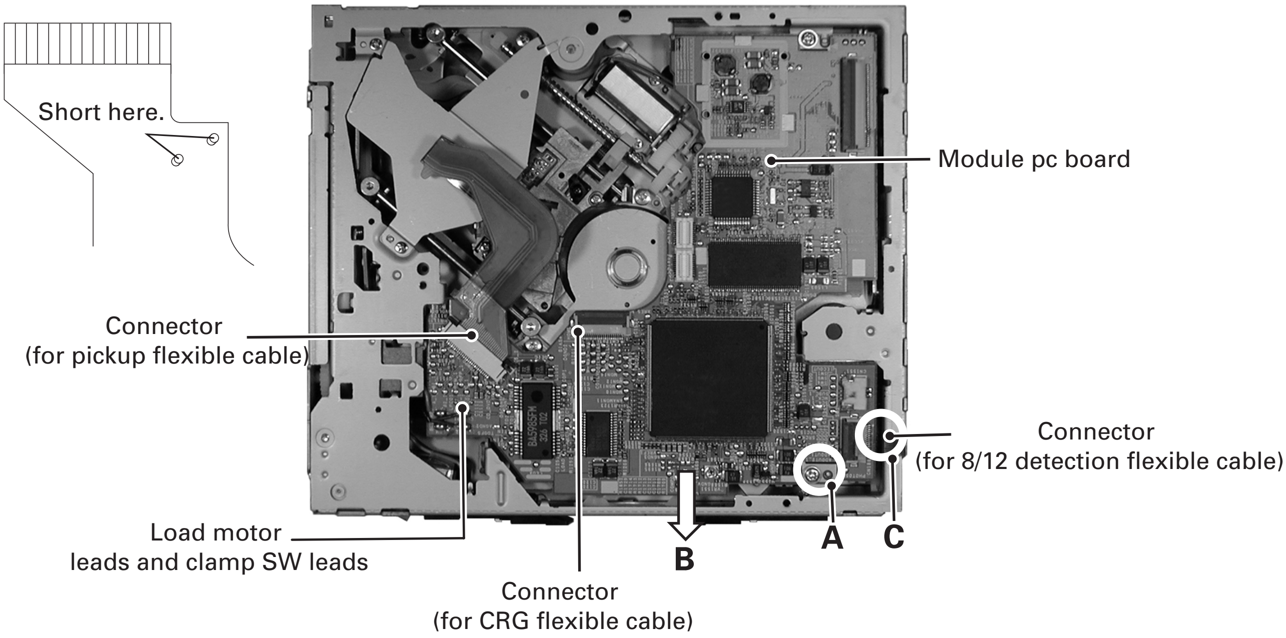
● Precautions on handling the mechanism module

1. Hold the upper and main frames.
2. Do not hold the front portion of the upper frame. It is a delicate part.
3. Do not touch the switches on the top panel.
4. Be careful not to catch the flexible cables.


CNP6686
Do not touch here.
Do not touch here.
Do not hold this delicate portion.

● Removing the module pc board

1. Set the mechanism to the lock position (disc load standby position).
2. Place the mechanism module upside down.
3. Short the two lands on the pickup flexible cable as shown below.
4. Be sure to disconnect the pickup flexible cable and the CRG flexible cable from the connectors to protect them from damages.
5. Remove solder from the load motor leads and clamp SW leads.
6. Loosen the two fixing screws. Lift the position A of the module pc board lightly and move it in the direction B to remove it. Be careful not to damage the flexible cable C.
7. Disconnect the 8/12 detection flexible-cable from the connector.


Short here.
Module pc board
Connector
(for pickup flexible cable)
Connector
(for 8/12 detection flexible cable)
Load motor
leads and clamp SW leads
A
C
B
Connector
(for CRG flexible cable)

● Removing the pickup unit

1. Remove the module pc board in accordance with the procedure of "Removing the module pc board.”
2. While holding the pickup case, remove the skew screw (main).
3. Lifting the end of the pickup rack, slide the main shaft, and remove the pickup unit.

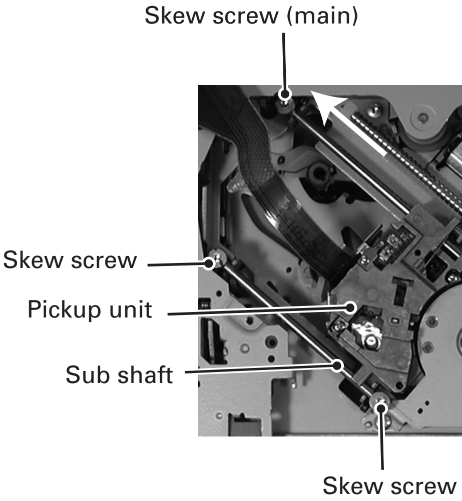
Notes:

Replacing the pickup unit requires the skew adjustment.

Remove glue from both ends of the main and sub shafts, and skew stud.

Do not reuse the old skew screw. Be sure to use a brand-new skew screw supplied with a new pickup unit.

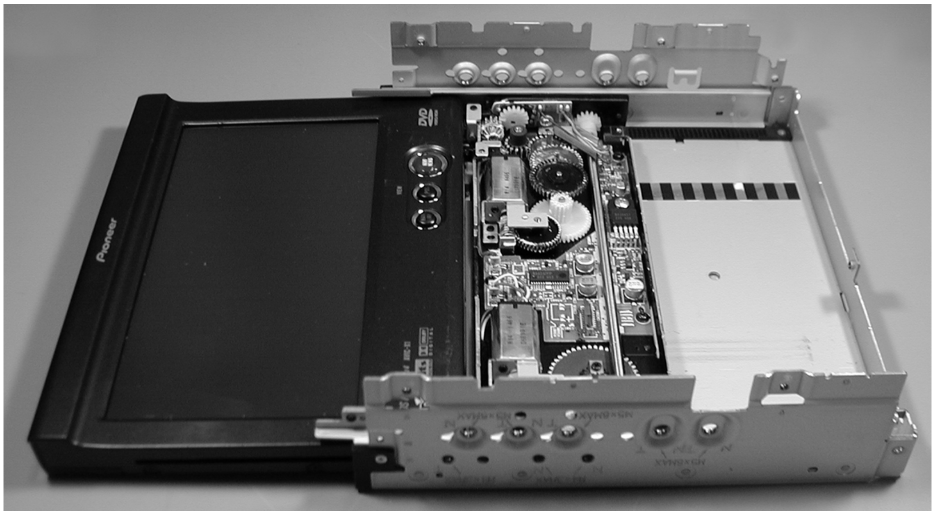
Fix the skew screw with glue (GYL1001) after adjustment.



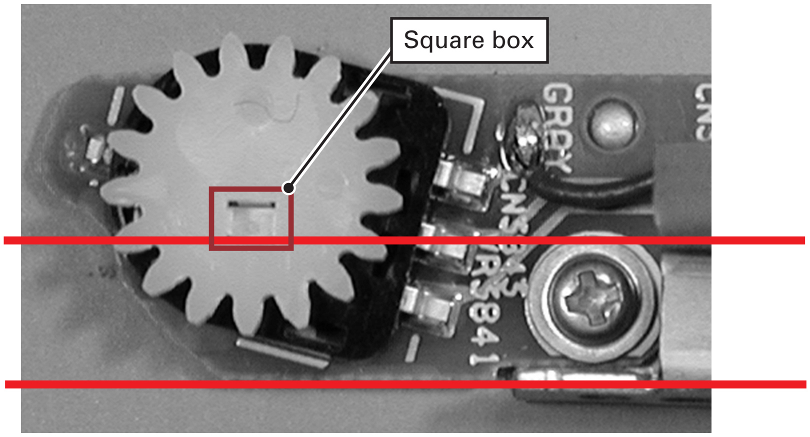
● How to install the Volume Unit fo the Drive Unit

When install the Volume Unit, adjust the positioning of the rotating angle of the gear.

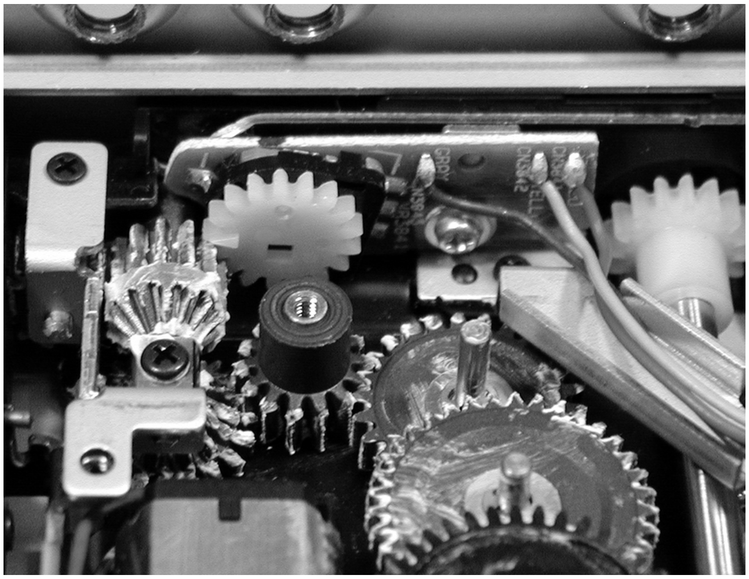
1. Set the Monitor Unit horizontally with the Main Unit of the Drive Unit.



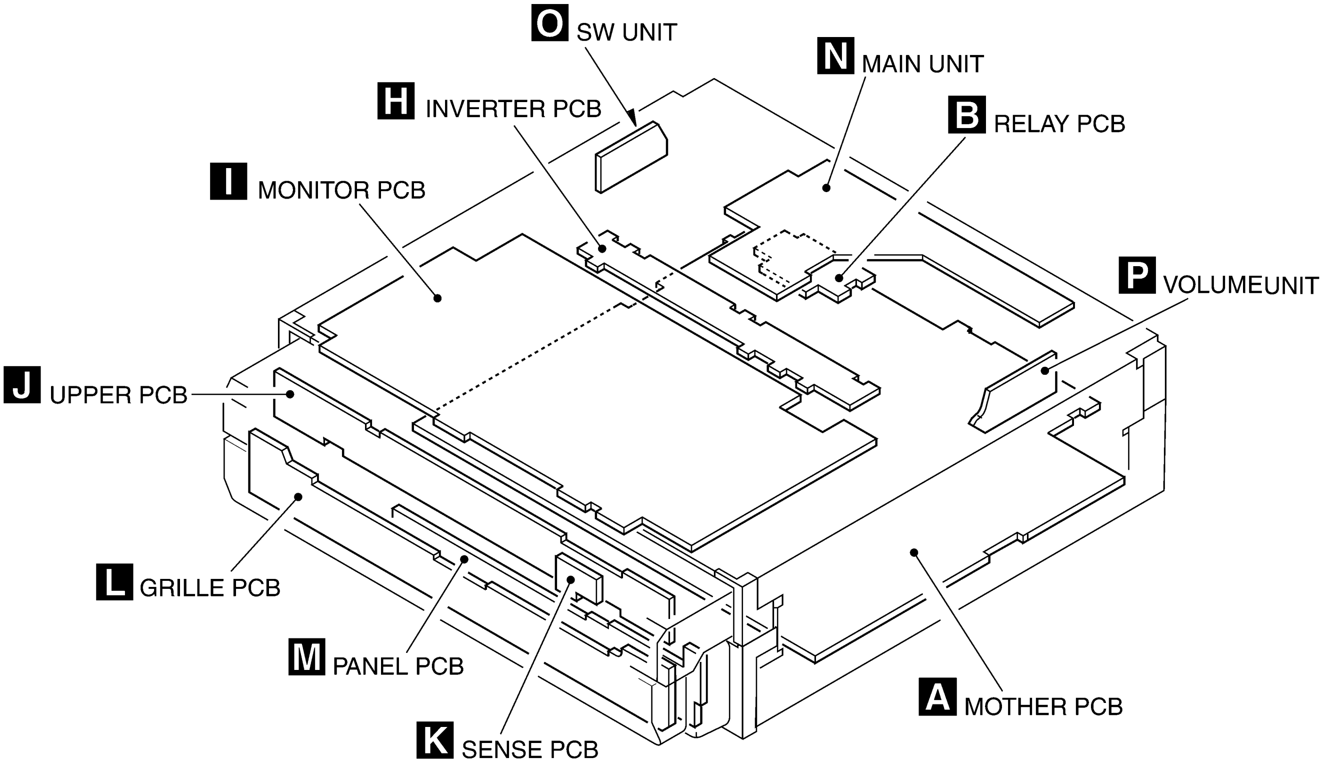
2. When install the gear unit, rotate the gear by hand until the square box of the gear keeps in a horizontal position like the figure below.

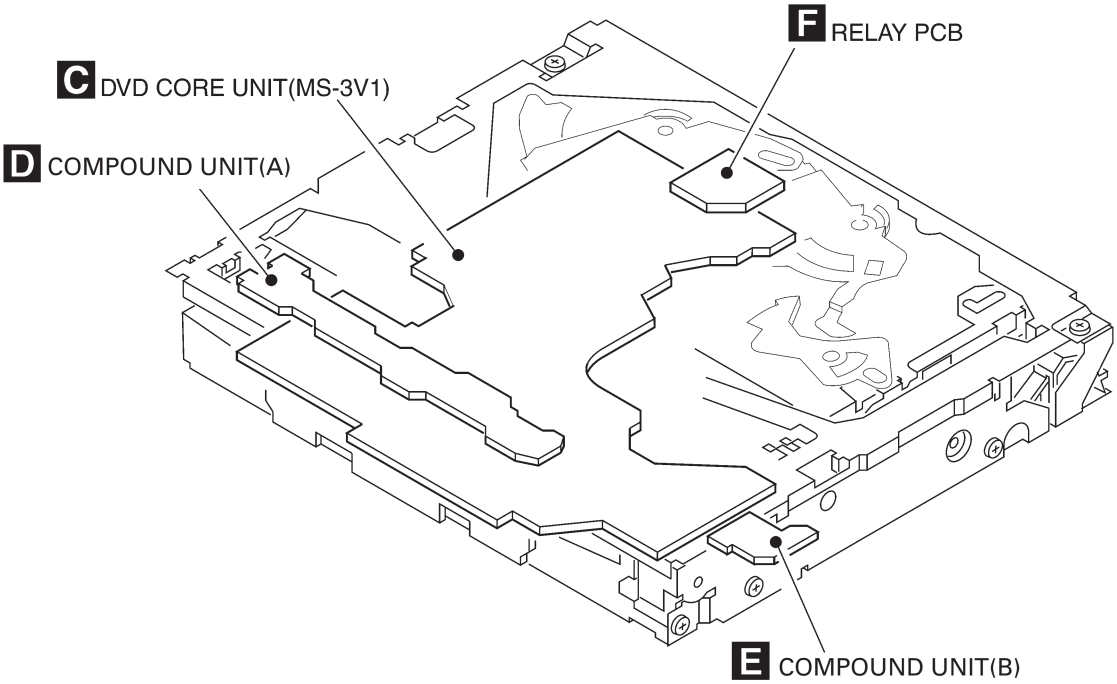


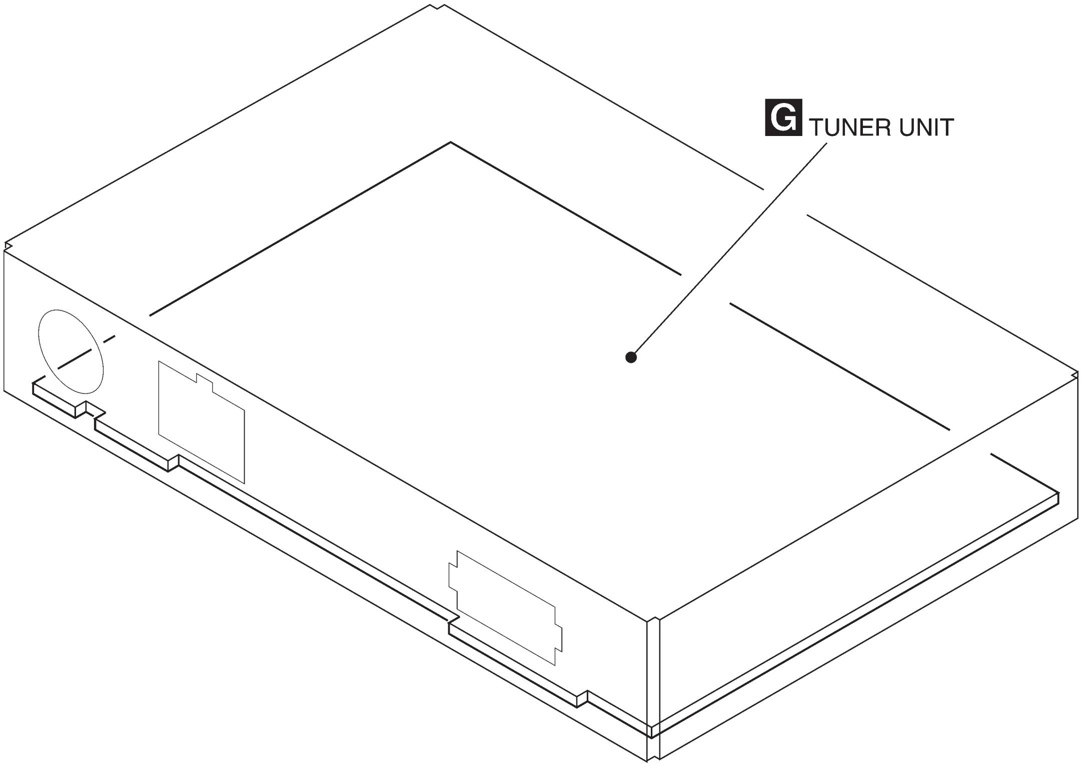
*Gap of one teeth is acceptable.



7.1.2 PCB LOCATIONS

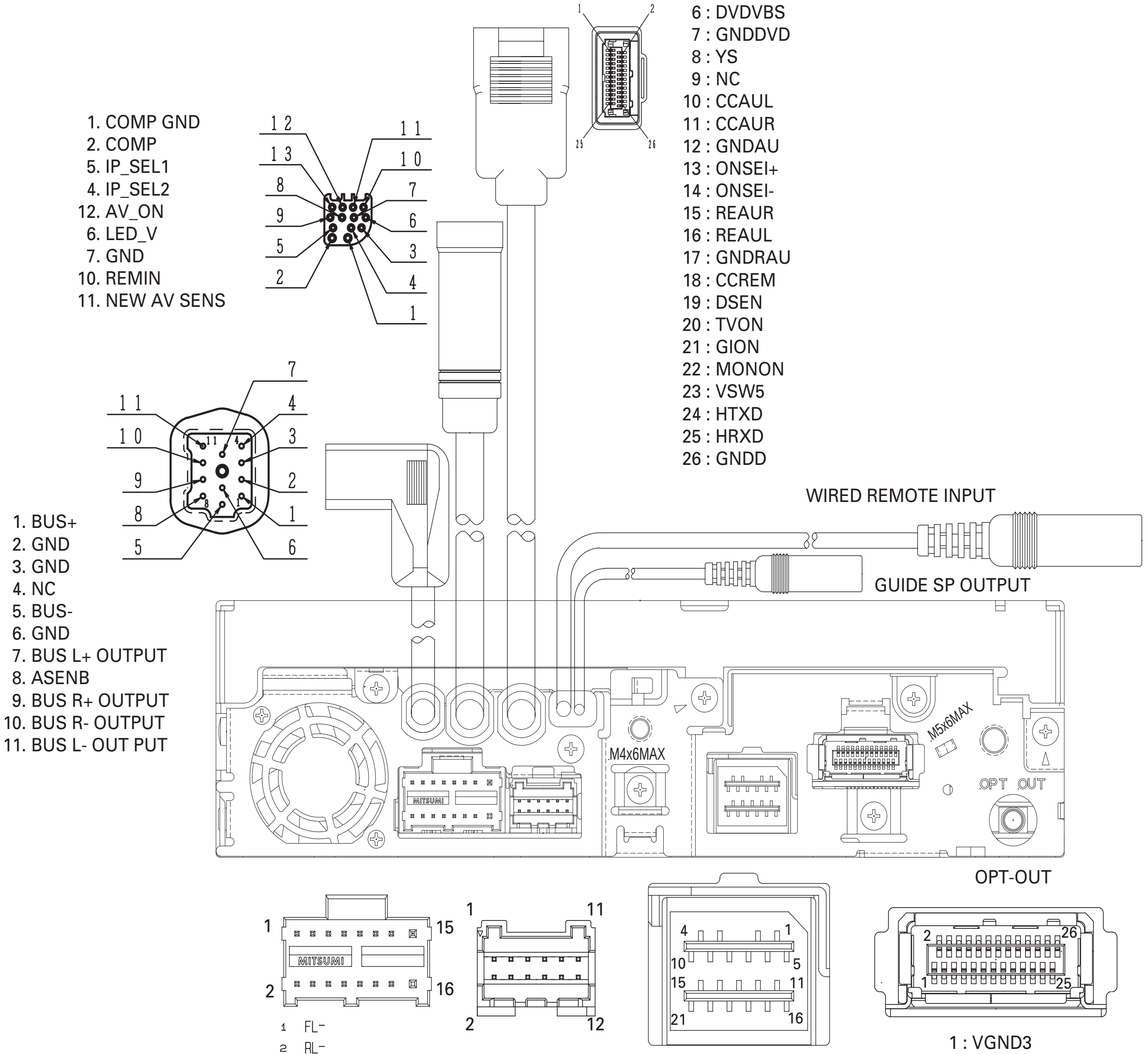

O SW UNIT
N MAIN UNIT
H INVERTER PCB
B RELAY PCB
I MONITOR PCB
P VOLUMEUNIT
J UPPER PCB
L GRILLE PCB
M PANEL PCB
A MOTHER PCB
K SENSE PCB


F RELAY PCB
C DVD CORE UNIT(MS-3V1)
D COMPOUND UNIT(A)
E COMPOUND UNIT(B)


G TUNER UNIT

7.1.3 CONNECTOR FUNCTION DESCRIPTION

AVH-P6600DVD/UC
AVH-P6600DVD/EW


1
2
25
26
12
13
8
9
5
2
11
10
7
6
3
4
1
7
11
10
9
8
5
4
3
2
1
6
WIRED REMOTE INPUT
GUIDE SP OUTPUT
M4x6MAX
M5x6MAX
OPT OUT
OPT-OUT
1
15
2
16
MITSUMI
1
11
2
12
4
1
10
5
15
11
21
16
2
26
1
25

1 : CCR
2 : CCG
3 : CCB
4 : CCSYNC
5 : GNDSIG
6 : DVDVBS
7 : GNDDVD
8 : YS
9 : NC
10 : CCAUL
11 : CCAUR
12 : GNDAU
13 : ONSEI+
14 : ONSEI-
15 : REAUR
16 : REAUL
17 : GNDRAU
18 : CCREM
19 : DSEN
20 : TVON
21 : GION
22 : MONON
23 : VSW5
24 : HTXD
25 : HRXD
26 : GNDD

1. COMP GND
2. COMP
5. IP_SEL1
4. IP_SEL2
12. AV_ON
6. LED_V
7. GND
10. REMIN
11. NEW AV SENS

1. BUS+
2. GND
3. GND
4. NC
5. BUS-
6. GND
7. BUS L+ OUTPUT
8. ASENB
9. BUS R+ OUTPUT
10. BUS R- OUTPUT
11. BUS L- OUT PUT

1 FL-
2 RL-
3 FL+
4 RL+
5 FR-
6 RR-
7 FR+
8 RR+
9 P.B.
10 VGND
11 ACC
12 B.REM
13 ILL
14 MUTE
15 B.UP
16 GND

1 : FL
2 : FLGND
3 : FR
4 : FRGND
5 : RL
6 : RLGND
7 : RR
8 : RRGND
9 : SWL
10 : SWLGND
11 : SWR
12 : SWRGND

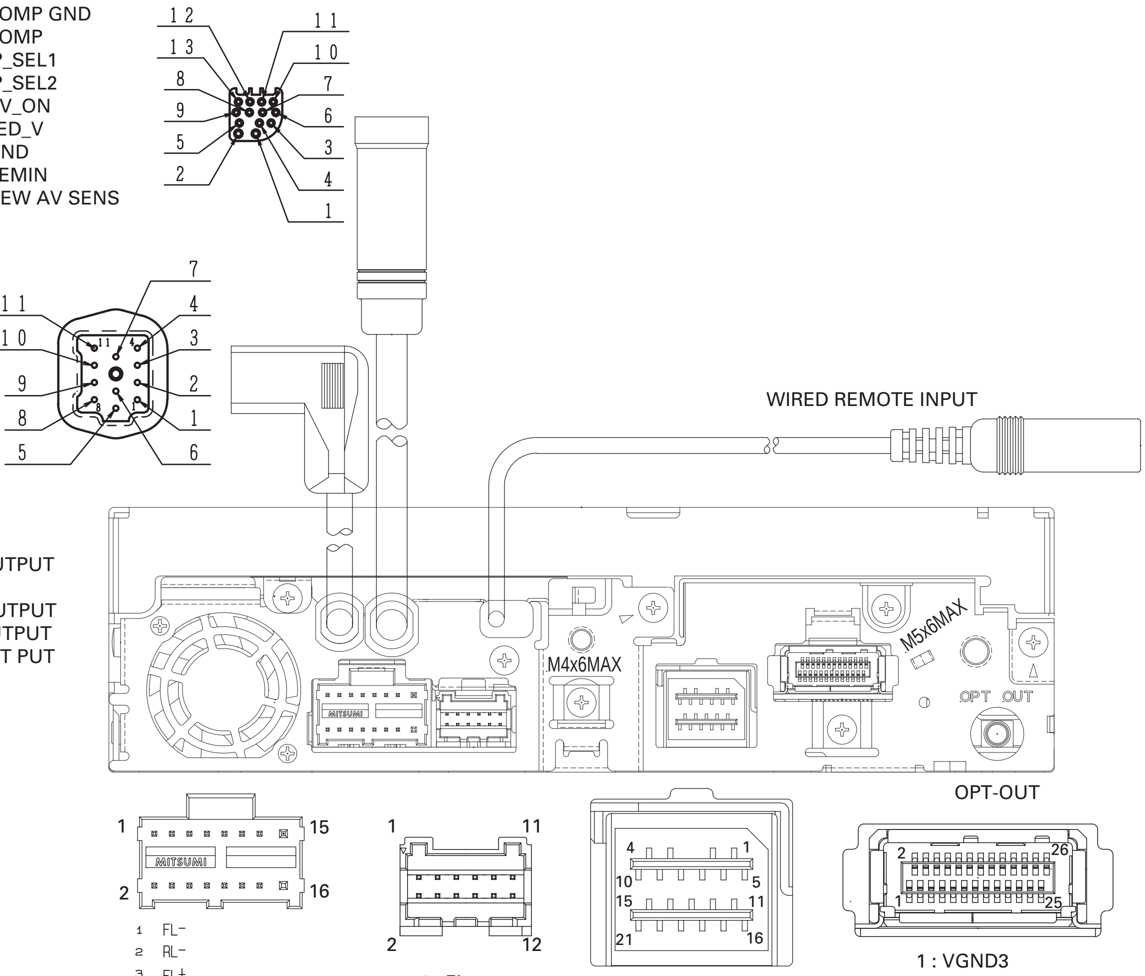
1 : CE1
2 : D1
3 : D0
4 : DGND
5 : SL
6 : CK
7 : OSCGND
8 : ROMVDD
9 : RDSCK
10 : AGND
11 : NC
12 : LDET
13 : NC
14 : RDSDATA
15 : RDSLOCK
16 : RFGND
17 : CE2
18 : NC
19 : NC
20 : RDSLO
21 : BU14

1 : VGND3
2 : BCAM
3 : µGND
4 : VGND2
5 : AUXV
6 : PRGSW
7 : AGND2
8 : AUXR
9 : AUXL
10 : NC
11 : NC
12 : BGSENS
13 : NC
14 : NC
15 : NC
16 : NC
17 : BEGND
18 : TUNR
19 : TUNL
20 : NC
21 : VGND1
22 : REARV
23 : NC
24 : AGND1
25 : REARR
26 : REARL

AVH-P6650DVD/RC
AVH-P6650DVD/RD

1. COMP GND
2. COMP
5. IP_SEL1
4. IP_SEL2
12. AV_ON
6. LED_V
7. GND
10. REMIN
11. NEW AV SENS

1. BUS+
2. GND
3. GND
4. NC
5. BUS-
6. GND
7. BUS L+ OUTPUT
8. ASENB
9. BUS R+ OUTPUT
10. BUS R- OUTPUT
11. BUS L- OUT PUT


12
11
13
10
8
7
9
6
5
3
2
4
1
7
11
4
10
3
9
2
8
1
5
6
WIRED REMOTE INPUT
M4x6MAX
M5x6MAX
OPT OUT
OPT-OUT
MITSUMI
1
15
2
16
1
11
2
12
4
1
10
5
15
11
21
16
2
26
1
25

1 FL-
2 RL-
3 FL+
4 RL+
5 FR-
6 RR-
7 FR+
8 RR+
9 P.B.
10 VGND
11 ACC
12 B.REM
13 ILL
14 MUTE
15 B.UP
16 GND

1 : FL
2 : FLGND
3 : FR
4 : FRGND
5 : RL
6 : RLGND
7 : RR
8 : RRGND
9 : SWL
10 : SWLGND
11 : SWR
12 : SWRGND

1 : CE1
2 : D1
3 : D0
4 : DGND
5 : SL
6 : CK
7 : OSCGND
8 : ROMVDD
9 : RDSCK
10 : AGND
11 : NC
12 : LDET
13 : NC
14 : RDSDATA
15 : RDSLOCK
16 : RFGND
17 : CE2
18 : NC
19 : NC
20 : RDSLO
21 : BU14

1 : VGND3
2 : BCAM
3 : µGND
4 : VGND2
5 : AUXV
6 : PRGSW
7 : AGND2
8 : AUXR
9 : AUXL
10 : NC
11 : NC
12 : BGSENS
13 : NC
14 : NC
15 : NC
16 : NC
17 : BEGND
18 : TUNR
19 : TUNL
20 : NC
21 : VGND1
22 : REARV
23 : NC
24 : AGND1
25 : REARR
26 : REARL

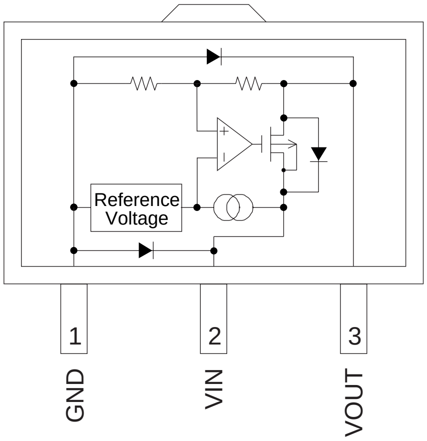
7.2 PARTS

7.2.1 IC

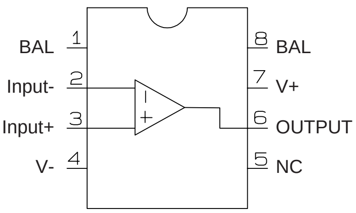
S-812C33AUA-C2N
NJM2136V
SM5304AV
S-80841CNUA-B82
TC7WHU04FU
NJM4580V
PE5415A : EW
PE5416A : UC,RC,RD
HA12240FP
PE5417A
S-812C50AUA-C3E
PD8125A
PD8126A
K4S641632H-TC75
TC7SZ04FU
TC7SZ02FU
LTC3728EG
TK15404AMI
SI6544DQ
S-93C46BR0I-J8T1
TC7SZ32FU
S-80827CNUA-B8M
TC74VCX02FT
PD6340A
K4S283232E-TC75
NJM2140R
TC7WH157FU
R1130H501B
SM8707LV
TC74LCK16373AFT
PE5401A
PD6480B
S-L2980A50MC-C7J
LTC3411EMS
TC7SZ125FU
MN35104UB

IC's marked by * are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

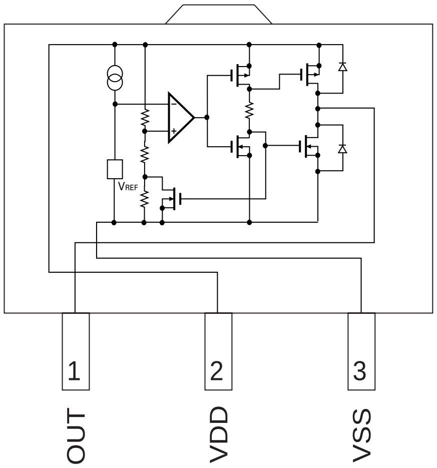
*S-812C33AUA-C2N


Reference Voltage
1
2
3
GND
VIN
VOUT

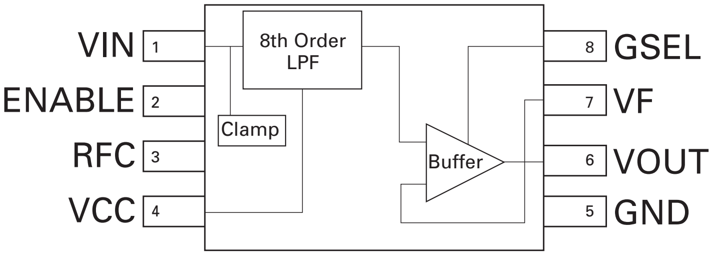
NJM2136V


BAL 1
Input- 2
Input+ 3
V- 4
8 BAL
7 V+
6 OUTPUT
5 NC

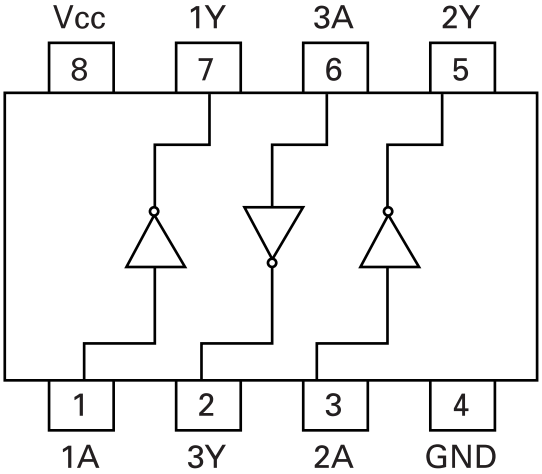
*S-80841CNUA-B82


VREF
1
2
3
OUT
VDD
VSS

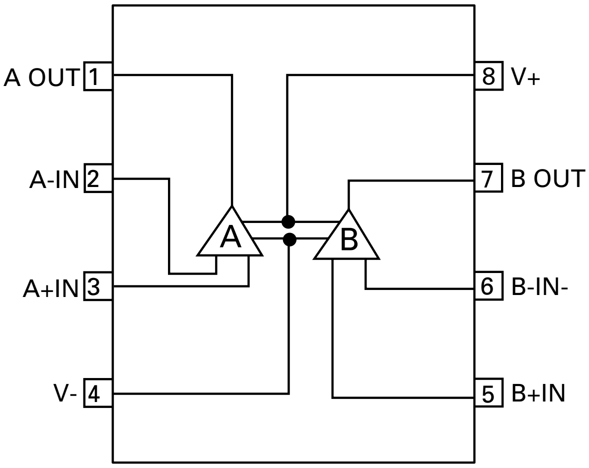
SM5304AV


VIN 1
ENABLE 2
RFC 3
VCC 4
8th Order LPF
Clamp
Buffer
8 GSEL
7 VF
6 VOUT
5 GND

*TC7WHU04FU


Vcc
1Y
3A
2Y
8
7
6
5
1
2
3
4
1A
3Y
2A
GND

NJM4580V


A OUT 1
A-IN 2
A+IN 3
V- 4
A
B
8 V+
7 B OUT
6 B-IN-
5 B+IN

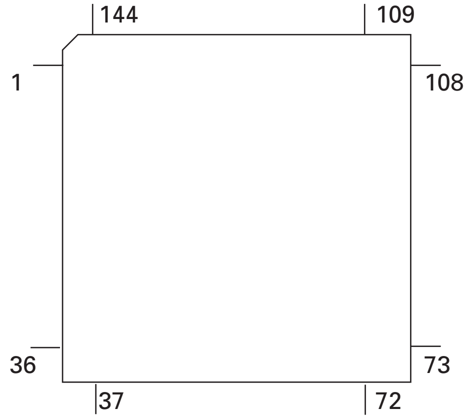
● Pin Function(PE5415A:EW,PE5416A:UC,RC,RD)

Pin No.	Pin Name	I/O	Function and operation
1	STEST1	I	Test input
2	MODEL1	I	Model select input
3	MODEL2	I	Model select input
4	NC		Not used
5	PORTGND0		Port GND
6	ROMCS	O	ROM Chip select output
7	ROMCLK	O	ROM Clock output
8	ROMDATA	I/O	ROM Data Input output
9	VDT	O	EVOL Data output
10	VCK	O	EVOL Clock output
11	FRONTMUTE	O	Front Mute output
12	VST	O	EVOL Strobe output
13	MTRPW	O	FLAP Motor power supply control output
14	MTRSEL	O	FLAP motor control output
15	MTRS	O	FLAP Motor speed contorl output
16	MTR1	O	FLAP angle motor control signal output
17	MTR2	O	FLAP position motor control signal
18	SNSPW	O	FLAP sense power supply output
19	$\overline{\text{PUSHSW}}$	I	FLAP push switch input
20	$\overline{\text{DEG0SW}}$	I	FLAP monitor angle 0 sense input
21	LIFTPUL	I	FLAP lift pulse input
22	PORTVDD0		Port power supply
23	RDT	I	RDS data input (EW model)
24	$\overline{\text{RDS57K}}$	I	RDS 57kHz input (EW model)
25	$\overline{\text{RDSLK}}$	I	RDS signal input (EW model)
26	RECIVE	O	RDS receive
27	CRREAR	O	Rear key output
28	CGREAR	O	Rear output
29	ACCPW	O	ACC power control output
30	SRCPW	O	Source power control output
31	AMPPW	O	Amp power control output
32	VPW	O	Video power control output
33	DDCCNTL	O	DD converter output
34	DLED	O	LED output
35	ILMGRN	O	Illumination output
36	CLKOUT	O	System clock ouptut
37	GND0		GND
38	CPUREG		Regulator output
39	VDD0		Power supply(/RESET)
40	$\overline{\text{RESET}}$	I	Reset input
41	VPP		Vpp
42	TSI	I	Test data input
43	TSO	O	Test data output
44	TCK	I	Test data clock input
45	$\overline{\text{LDET}}$	I	RDS PLL signal (EW model)
46	TUNPDI	I	TUNER PLL data input
47	TUNPDO	I/O	TUNER PLL data input/output
48	TUNPCK	I/O	TUNER PLL clock input/output
49	TUNPW	O	Tuner power control output
50	MACHMUTE	O	RCA REAR/SW mute output
51	VSELIN1	I	VSEL input
52	VSELIN2	I	VSEL input
53	AVONIN	I	AV-BUS AV video input sense
54	ROT0	I	Rotary encoder input
55	ROT1	I	Rotary encoder input
56	TESTIN	I	Test mode input
57	$\overline{\text{RCK}}$	I	RDS data clock (EW model)
58	PRGON	I	System microcomputer program mode
59	VPPON	O	VPP ON/OFF
60	PORTVDD1	O	Port power supply

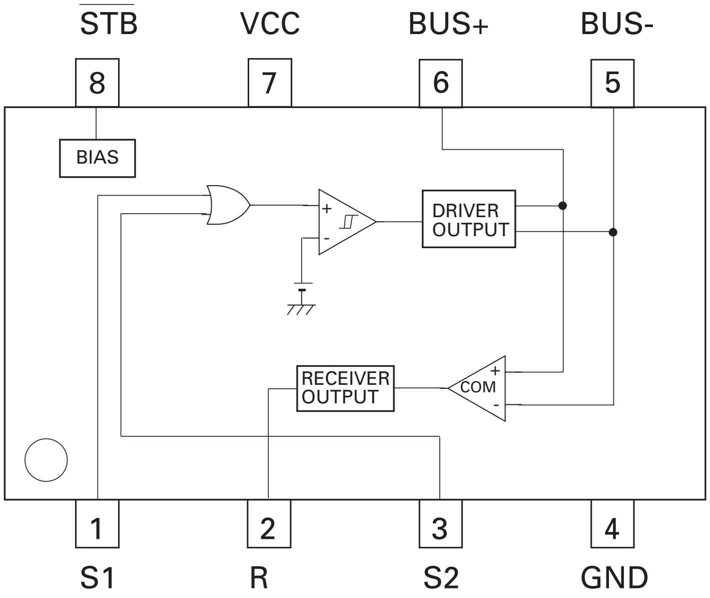
Pin No.	Pin Name	I/O	Function and operation
61-64	NC		Not used
65	DDCONF	O	DD converter control output
66	NC		Not used
67	ILMRED	O	Illumination output (EW model)
68	BEEP	O	BEEP output
69	BSENS	I	Back up sense input
70	XT2		Sub clock oscillator connect
71	XT1		Sub clock oscillator connect
72	GND2		GND
73	X1		Main clock oscillator connect
74	X2		Main clock oscillator connect
75,76	NC		Not used
77	COOLCNT1	O	Fan control output
78	COOLCNT2	O	Fan control output
79,80	NC		Not used
81	CONTBIN	I	Back up off intput
82	NC		Notused
83	DSENS	I	Detach sense intput
84	SDA	I/O	AV selector data input/output
85	SELMUTE	O	AV selector sound mute output
86	SCL	O	AV selector clock output
87	ASENBO	O	Slave ACC sense output
88	IPPW	O	IPBUS driver power supply contorl output
89	NC		Not used
90	IERX	I	IPBUS data input
91	IETX	O	IPBUS data output
92	PORTGND1		Port GND
93-95	NC	O	Not used
96	ASENS	I	ACC sense input
97-99	NC		Not used
100	TUNPCE	O	TUNER PLL chip enable output
101	TUNPCE2	O	TUNER PLL chip enable output 2
102	PORTVDD2		Port power supply
103	CONTVDD	O	MS3 digital power control output
104	CONTVD8	O	MS3 motor power control output
105	DREM	O	NAVI Reboot remote control output
106	REMUTE	O	NAVI remote control mute output
107	RXMOM	I	Display microcomputer data input
108	TXMON	O	Display microcomputer data output
109	SWVDD	O	Display microcomputer power supply output
110	NC		Not used
111	RXMS3	I	MS3 data input
112	TXMS3	O	MS3 data output
113	IRQPWR	O	MS3 backup power output
114	XRESET	O	MS3 mechanism CPU reset output
115-116	NC		Not used
117	RXNAV	I	NAVI data input
118	TXNAV	O	NAVI command output
119	RGBSENS	I	RGB navigation ON sense input
120	NC		Not used
121	NMIXCNT	O	Voice guide mute output
122	MUTE	O	Mute output
123	REARMUTE	O	Rear monitor mute output
124	AMPMUTE	O	AMP mute output
125	NC		Not used

Pin No.	Pin Name	I/O	Function and operation
126	$\overline{\text{ISENS}}$	I	Illumination sense input
127	TELIN	I	TEL mute input
128	VDD1		Power supply
129	PBSENS	I	Packing brake sense input
130	BGSENS	I	Back gear sense input
131	GND1		GND
132,133	NC		Not used
134	WKYD	I	Remote control intput
135	TUNSL	I	TUNER signal level input
136	VD8SENS	I	VD8 sense input
137	ANGLEIN	I	Mechanism volume for angle sense input
138	WKYAD	I	Remote control input(Analog)
139	NC	I	Not used
140-142	KEYDTA0-2	I	Key data input
143	ADCVDD		A/D Power supply
144	ADCGND		A/D GND

*PE5415A : EW,PE5416A : UC,RC,RD


144
109
1
108
36
73
37
72

HA12240FP

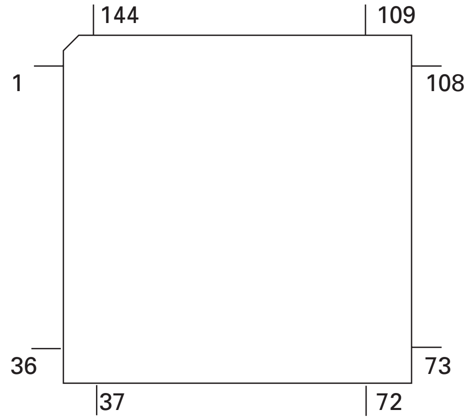

$\overline{\text{STB}}$
VCC
BUS+
BUS-
8
7
6
5
BIAS
+
-
DRIVER OUTPUT
RECEIVER OUTPUT
COM
+
-
1
2
3
4
S1
R
S2
GND

● Pin Function(PE5417A)

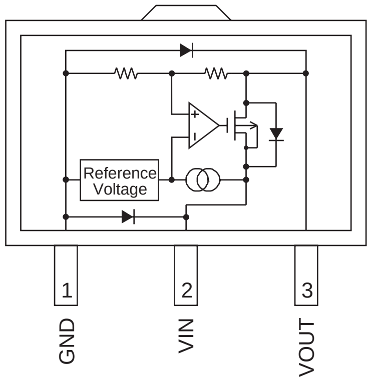
Pin No.	Pin Name	I/O	Function and operation
1-7	D14-8	I/O	Exterior ROM/RAM data bus input/output
8	VDD		Power supply
9	VSS		GND
10-17	D7-0	I/O	Exterior ROM/RAM data bus
18	MODE2		Operation mode select
19	$\overline{\text{IRL}}$	I	GDC interruption demand input
20	MFLPW	O	TFT backlight output
21	MVIPW	O	Video power supply output
22,23	NC		Not used
24	$\overline{\text{EPRST}}$	I	EEPROM data reset mode input
25	$\overline{\text{EPRTEST}}$	I	EEPROM data test mode input
26	NC		Not used
27	VDD		Power supply
28	VSS		GND
29-32	NC		Not used
33	DIMMER	O	Dimmer output
34-36	NC		Not used
37	VDD		Power supply
38	VSS		GND
39	PNLVD	O	Pouch panel push sense output
40	PNLXV	O	Hi output is carried out when X directions is detected output
41	PNLYV2	O	Hi output is carried out when Y directions is detected output
42	$\overline{\text{STEST}}$	I	Monitor operation mode input
43	INVPUL	O	Inverter pulse output
44	$\overline{\text{STEST2}}$	I	Touch panel test mode input
45	STEST	I	Test input
46	$\overline{\text{NM1}}$		Not used
47	VDD		Power supply
48	VSS		GND
49	NC		Not used
50	GDCPW	O	GDC IC power supply output
51	$\overline{\text{GDCRES}}$	O	GDC IC reset output
52	SELFRX	I	Data input for self writting
53	SELFTX	O	Data output for self writting
54	LDIMMER	O	LCD dimmer output
55,56	NC		Not used
57,58	MODE1,0		Operation mode pin
59	RESET		Reset pin
60	CKSEL		Clock generator select
61	CVDD		Clock generator power supply
62,63	X2,1		Oscillation pin
64	CVSS		Clock generator GND
65	LSWVDD	O	LCD micro computer power supply control output
66	LKYDT	I	Data input from LCD micro computer
67	LDPDT	O	Data output from LCD micro computer
68	LBKL	O	LCD micro computer backlight power supply control output
69	DPDT	I	Data input for test mode/data input from system micro computer
70	KYDT	O	Data output for test mode/data output from system micro computer
71	AVDD		A/D power supply
72	AVSS		A/D GND
73-76	NC		Not used
77	SPEANA	I	Spectrumanalyzer level input
78	PNLADY	I	Y directions analog input
79	PNLADXLSEN	I	X directions analog input
80	LSEN	I	Lens sense input
81	VDD		Power supply
82	VSS		GND
83-85	SP2-0	O	Spectrumanalyzer band select output
86	EPRCS	O	Memory for adjustment chip select output
87	EPRCLK	O	Memory for adjustment clock output

Pin No.	Pin Name	I/O	Function and operation
88	EPRDO	O	Memory for adjustment data output
89	EPRDI	I	Memory for adjustment data input
90	$\overline{\text{EPRPROT}}$	O	Memoty for adjustment protect output
91	$\overline{\text{WAIT}}$	I	GDC wait input
92	$\overline{\text{VDDSENS}}$		EEPROM power supply
93	$\overline{\text{YSSTOP}}$	O	YS stop output
94	TOPGDC	O	NAVI/GDC select output
95	$\overline{\text{RD}}$	O	Read output
96	$\overline{\text{UWR}}$	O	RAM write output
97	$\overline{\text{LWR}}$	O	RAM write output
98	VDD		Power supply
99	VSS		GND
100	SELFOUT	O	Self write output
101	$\overline{\text{CS6}}$	I	Exterior RAM chip select input
102	SELFIN	I	Self write input
103	$\overline{\text{CS4}}$	O	Exterior RAM chip select output
104	$\overline{\text{CS3}}$	O	Exterior ROM chip select output
105	RIND		Not used
106	NC		Not used
107	PIPDT	O	Pin P IC data input output
108	PIPCLK	O	Pin P IC clock output
109	pipres	O	Pin P IC reset output
110	SYNCKIND	I	RGB signal input
111	DISPMUTE	O	Video mute output
112	VDD		Power supply
113	VSS		GND
114-116	NC		Not used
117-123	A22-16	O	Exterior ROM/RAM address output
124	VDD		Power supply
125	VSS		GND
126-133	A15-A8	O	Exterior ROM/RAM address output
134	VDD		Power supply
135	VSS		GND
136-143	A7-0	O	Exterior ROM/RAM address output
144	D15	I/O	Exterior ROM/RAM data bus input/output

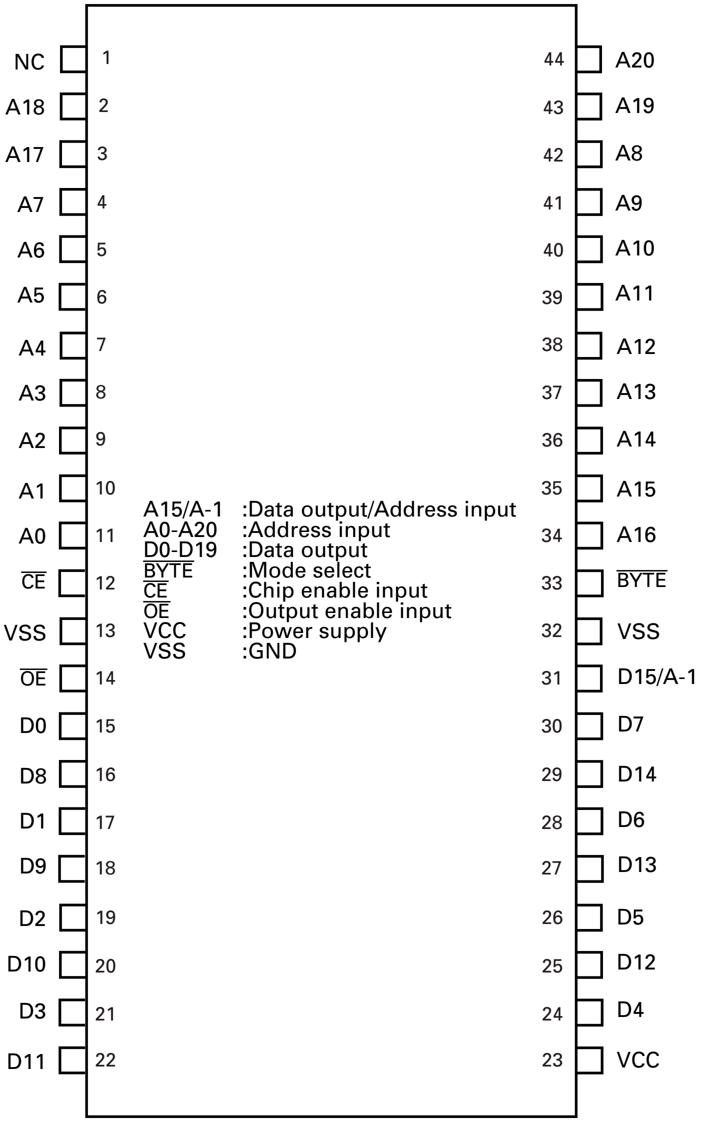
*PE5417A



*S-812C50AUA-C3E

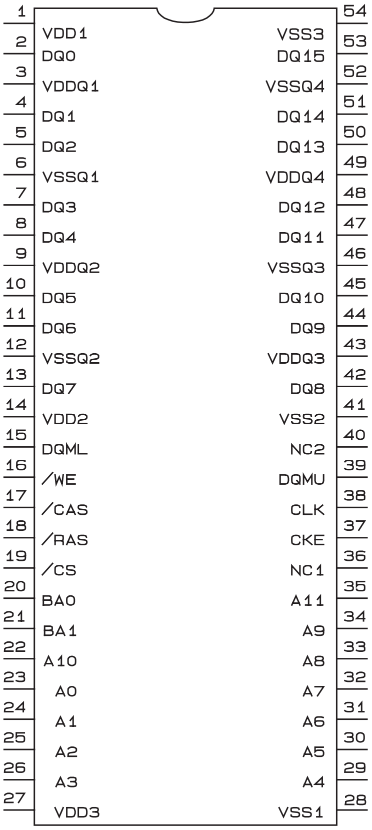


*PD8125A,
*PD8126A


NC 1
A18 2
A17 3
A7 4
A6 5
A5 6
A4 7
A3 8
A2 9
A1 10
A0 11
$\overline{\text{CE}}$ 12
VSS 13
$\overline{\text{OE}}$ 14
D0 15
D8 16
D1 17
D9 18
D2 19
D10 20
D3 21
D11 22
44 A20
43 A19
42 A8
41 A9
40 A10
39 A11
38 A12
37 A13
36 A14
35 A15
34 A16
33 $\overline{\text{BYTE}}$
32 VSS
31 D15/A-1
30 D7
29 D14
28 D6
27 D13
26 D5
25 D12
24 D4
23 VCC

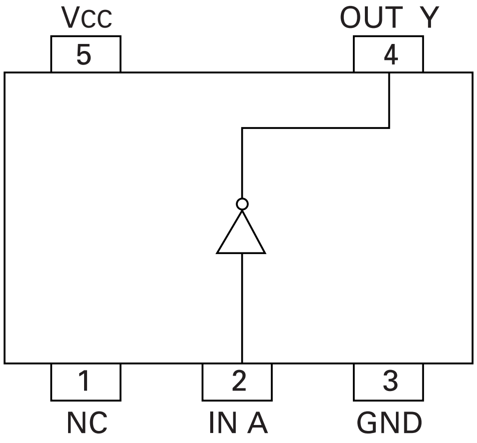
A15/A-1	:Data output/Address input
A0-A20	:Address input
D0-D19	:Data output
$\overline{\text{BYTE}}$	:Mode select
$\overline{\text{CE}}$	:Chip enable input
$\overline{\text{OE}}$	:Output enable input
VCC	:Power supply
VSS	:GND

*K4S641632H-TC75

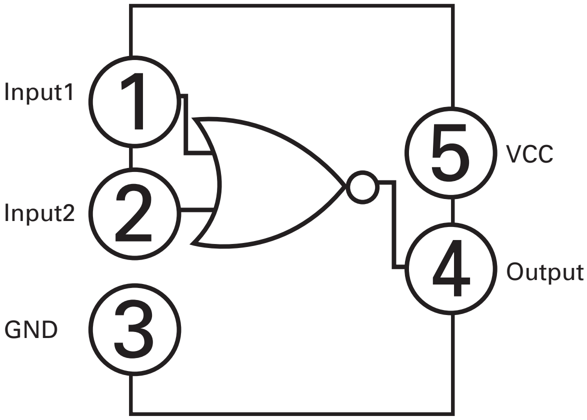

1 VDD1
2 DQ0
3 VDDQ1
4 DQ1
5 DQ2
6 VSSQ1
7 DQ3
8 DQ4
9 VDDQ2
10 DQ5
11 DQ6
12 VSSQ2
13 DQ7
14 VDD2
15 DQML
16 /WE
17 /CAS
18 /RAS
19 /CS
20 BA0
21 BA1
22 A10
23 A0
24 A1
25 A2
26 A3
27 VDD3
54 VSS3
53 DQ15
52 VSSQ4
51 DQ14
50 DQ13
49 VDDQ4
48 DQ12
47 DQ11
46 VSSQ3
45 DQ10
44 DQ9
43 VDDQ3
42 DQ8
41 VSS2
40 NC2
39 DQMU
38 CLK
37 CKE
36 NC1
35 A11
34 A9
33 A8
32 A7
31 A6
30 A5
29 A4
28 VSS1

A0-A11	:Address input
DQ0-DQ19	:Data request output
VDD	:Power supply
VSS	:GND
BA	:Memory address input
/CS	:Chip enable
/RAS	:Row address strobe
/CAS	:Column address strobe
/WE	:Write enable
DQML	:Low byte DQ mask
DQMU	:Upper byte DQ mask
CLK	:Clock output
CKE	:Clock enable

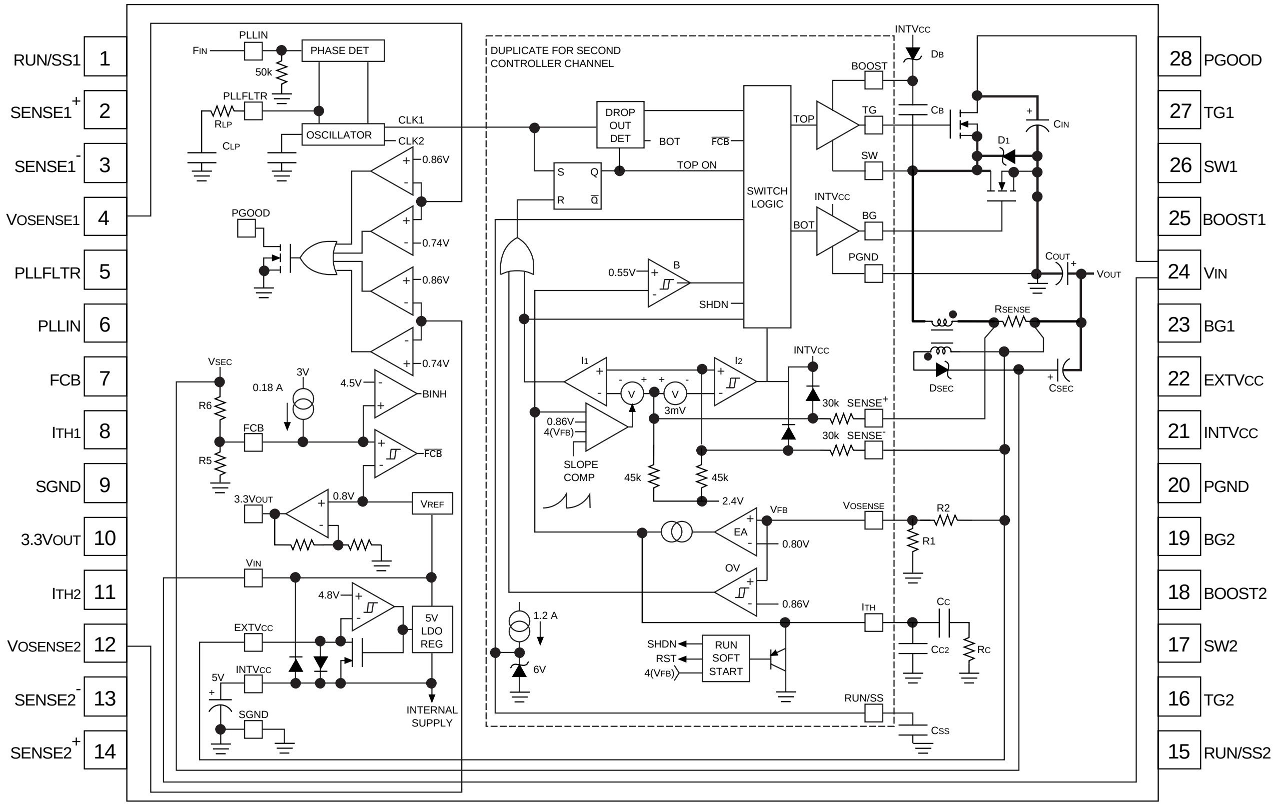
*TC7SZ04FU


VCC
5
OUT Y
4
1
NC
2
IN A
3
GND

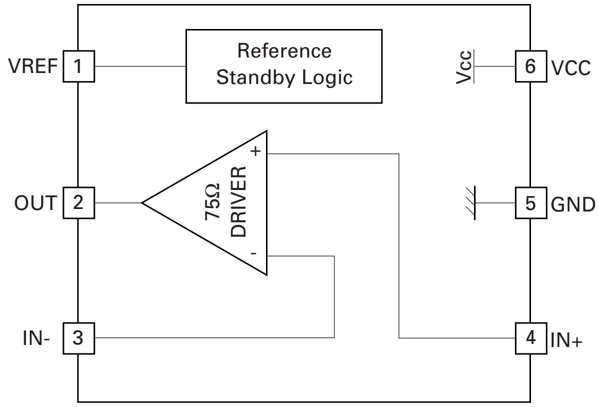
*TC7SZ02FU


Input1
1
Input2
2
GND
3
5
VCC
4
Output

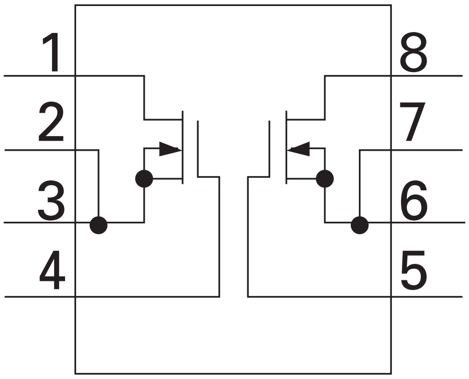
*LTC3728EG


RUN/SS1 1
SENSE1+ 2
SENSE1- 3
VOSENSE1 4
PLLFLTR 5
PLLIN 6
FCB 7
ITH1 8
SGND 9
3.3VOUT 10
ITH2 11
VOSENSE2 12
SENSE2- 13
SENSE2+ 14
28 PGOOD
27 TG1
26 SW1
25 BOOST1
24 VIN
23 BG1
22 EXTVCC
21 INTVCC
20 PGND
19 BG2
18 BOOST2
17 SW2
16 TG2
15 RUN/SS2
PLLIN
FIN
PHASE DET
50k
PLLFLTR
RLP
CLP
OSCILLATOR
CLK1
CLK2
0.86V
0.74V
PGOOD
VSEC
0.18 A
3V
4.5V
BINH
R6
R5
FCB
3.3VOUT
0.8V
VREF
VIN
4.8V
5V LDO REG
EXTVCC
INTVCC
5V
SGND
INTERNAL SUPPLY
DUPLICATE FOR SECOND CONTROLLER CHANNEL
DROP OUT DET
BOT
FCB
TOP ON
S
R
Q
SWITCH LOGIC
0.55V
B
SHDN
I1
I2
V
3mV
0.86V
4(VFB)
SLOPE COMP
45k
45k
2.4V
VFB
EA
0.80V
OV
0.86V
1.2 A
6V
SHDN
RST
4(VFB)
RUN SOFT START
INTVCC
DB
BOOST
CB
TG
TOP
SW
INTVCC
BG
BOT
PGND
CIN
D1
COUT
VOUT
RSENSE
DSEC
CSEC
SENSE+
SENSE-
30k
30k
VOSENSE
R2
R1
ITH
CC
CC2
RC
RUN/SS
CSS

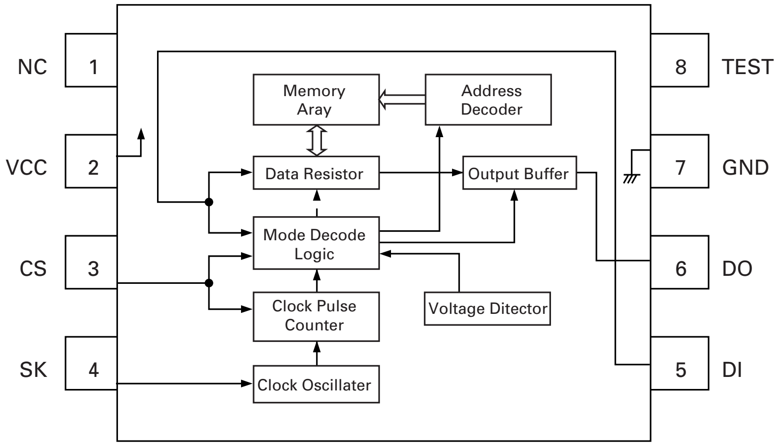
*TK15404AMI


VREF 1
OUT 2
IN- 3
Reference Standby Logic
75Ω DRIVER
+
-
Vcc
6 VCC
5 GND
4 IN+

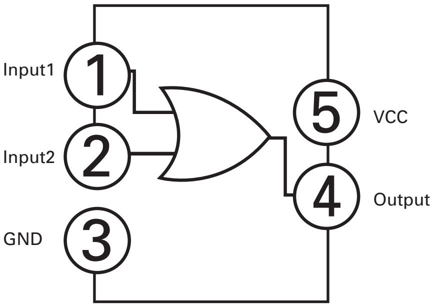
*SI6544DQ



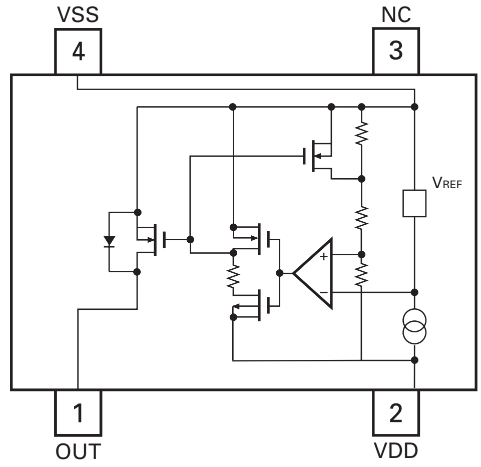
*S-93C46BR0I-J8T1


NC 1
VCC 2
CS 3
SK 4
8 TEST
7 GND
6 DO
5 DI
Memory Aray
Address Decoder
Data Resistor
Output Buffer
Mode Decode Logic
Clock Pulse Counter
Voltage Ditector
Clock Oscillater

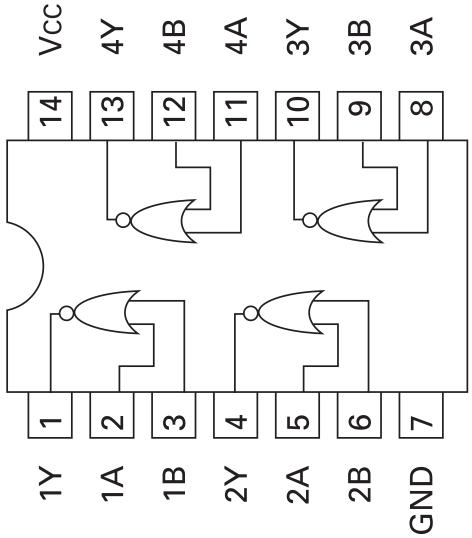
*TC7SZ32FU


Input1
1
Input2
2
GND
3
5
VCC
4
Output

*S-80827CNUA-B8M


VSS
NC
4
3
VREF
+
−
1
2
OUT
VDD

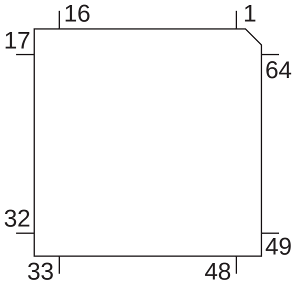
*TC74VCX02FT


VCC
4Y
4B
4A
3Y
3B
3A
14
13
12
11
10
9
8
1
2
3
4
5
6
7
1Y
1A
1B
2Y
2A
2B
GND

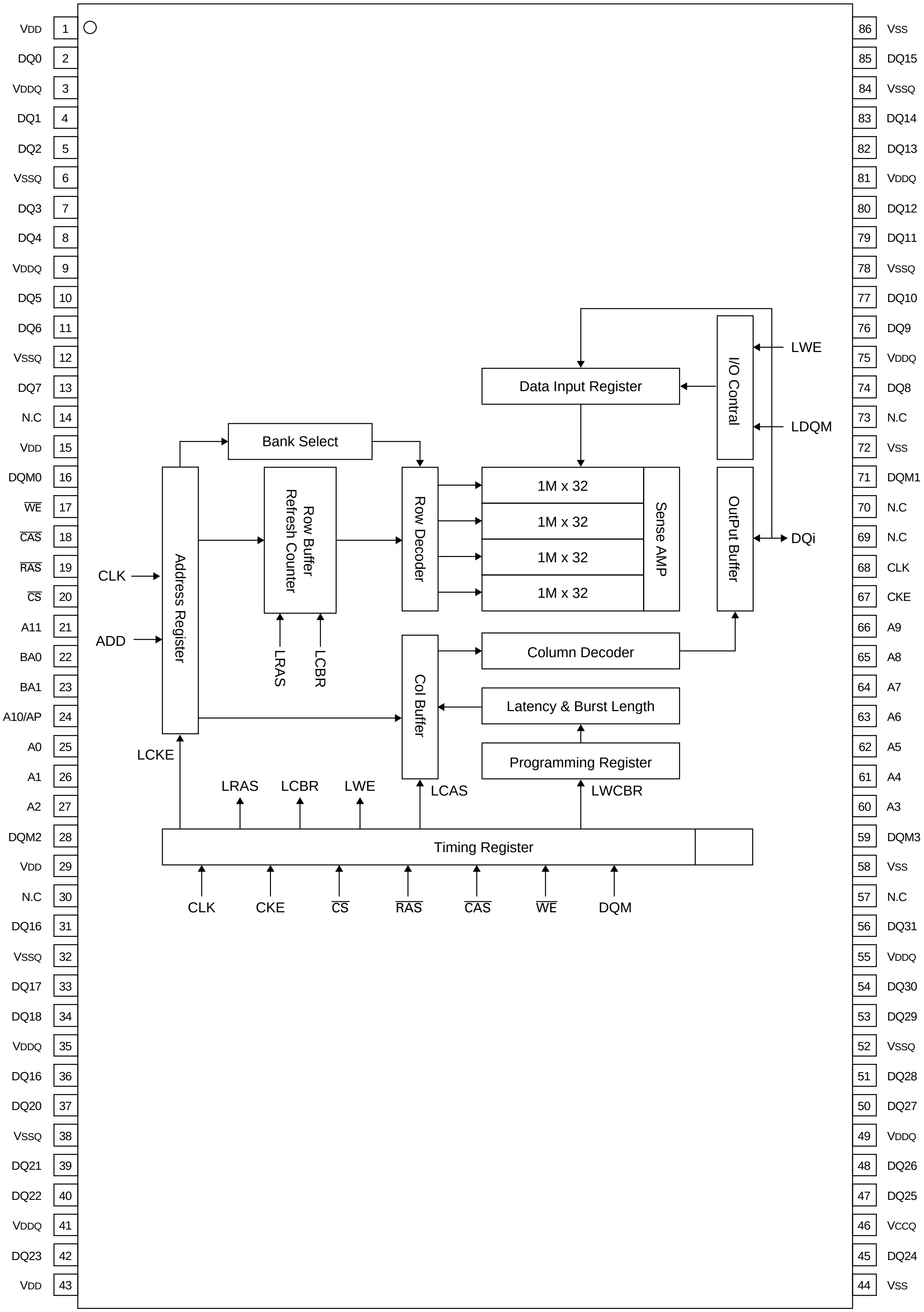
● Pin Functions (PD6340A)

Pin No.	Pin Name	I/O	Function and Operation
1,2	SEG1,0	O	LCD segment signal output
3-5	NC		Not used
6-9	COM3-0	O	LCD common signal output
10	VLCD		LCD driver power supply
11-14	KST3-0	O	Key strobe output
15,16	KDT0,1	I	Key data intput(Analog)
17	REM	I	Remote control data input
18	DPDT	I	Display data input
19	NC		Not used
20	KYDT	O	Key data output
21	MODA		GND
22	X0		Crystal oscillating element connection pin
23	X1		Crystal oscillating element connection pin
24	VSS		GND
25,26	KDT2,3	I	Key data input
27	NC		Not used
28	KST4	O	Key strobe output
29-33	NC		Not used
34-55	SEG31-10	O	LCD segment signal output
56	VDD		Power suplly
57-64	SEG9-2	O	LCD segment signal output

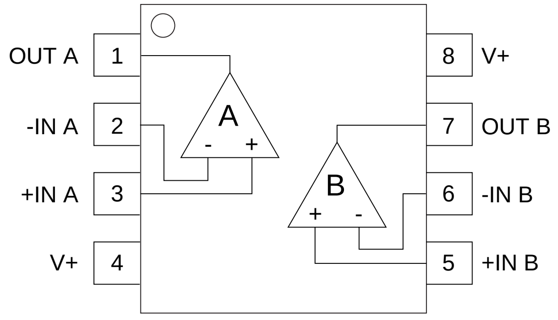
*PD6340A


16
1
17
64
32
49
33
48

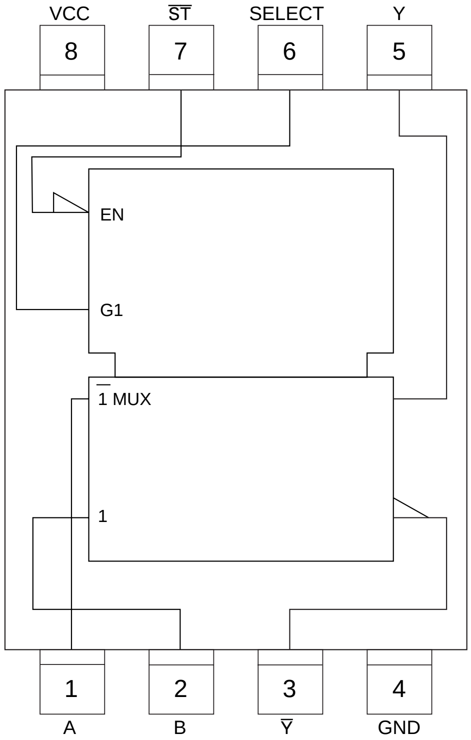
*K4S283232E-TC75


VDD 1
DQ0 2
VDDQ 3
DQ1 4
DQ2 5
VSSQ 6
DQ3 7
DQ4 8
VDDQ 9
DQ5 10
DQ6 11
VSSQ 12
DQ7 13
N.C 14
VDD 15
DQM0 16
WE 17
CAS 18
RAS 19
CS 20
A11 21
BA0 22
BA1 23
A10/AP 24
A0 25
A1 26
A2 27
DQM2 28
VDD 29
N.C 30
DQ16 31
VSSQ 32
DQ17 33
DQ18 34
VDDQ 35
DQ16 36
DQ20 37
VSSQ 38
DQ21 39
DQ22 40
VDDQ 41
DQ23 42
VDD 43
86 VSS
85 DQ15
84 VSSQ
83 DQ14
82 DQ13
81 VDDQ
80 DQ12
79 DQ11
78 VSSQ
77 DQ10
76 DQ9
75 VDDQ
74 DQ8
73 N.C
72 VSS
71 DQM1
70 N.C
69 N.C
68 CLK
67 CKE
66 A9
65 A8
64 A7
63 A6
62 A5
61 A4
60 A3
59 DQM3
58 VSS
57 N.C
56 DQ31
55 VDDQ
54 DQ30
53 DQ29
52 VSSQ
51 DQ28
50 DQ27
49 VDDQ
48 DQ26
47 DQ25
46 VCCQ
45 DQ24
44 VSS
LWE
I/O Contral
Data Input Register
LDQM
Bank Select
Address Register
Row Buffer
Refresh Counter
Row Decoder
1M x 32
1M x 32
1M x 32
1M x 32
Sense AMP
OutPut Buffer
DQi
CLK
ADD
LRAS
LCBR
Col Buffer
Column Decoder
Latency & Burst Length
Programming Register
LCKE
LRAS
LCBR
LWE
LCAS
LWCBR
Timing Register
CLK
CKE
CS
RAS
CAS
WE
DQM

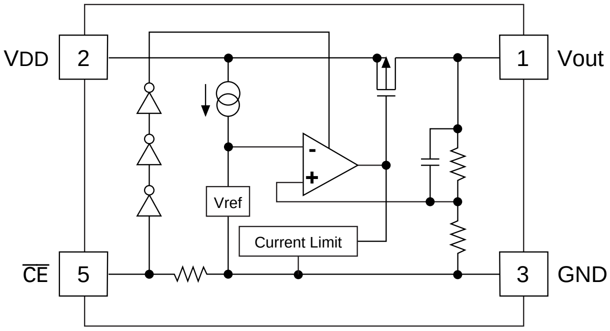
NJM2140R


OUT A
1
-IN A
2
+IN A
3
V+
4
A
-
+
B
+
-
8
V+
7
OUT B
6
-IN B
5
+IN B

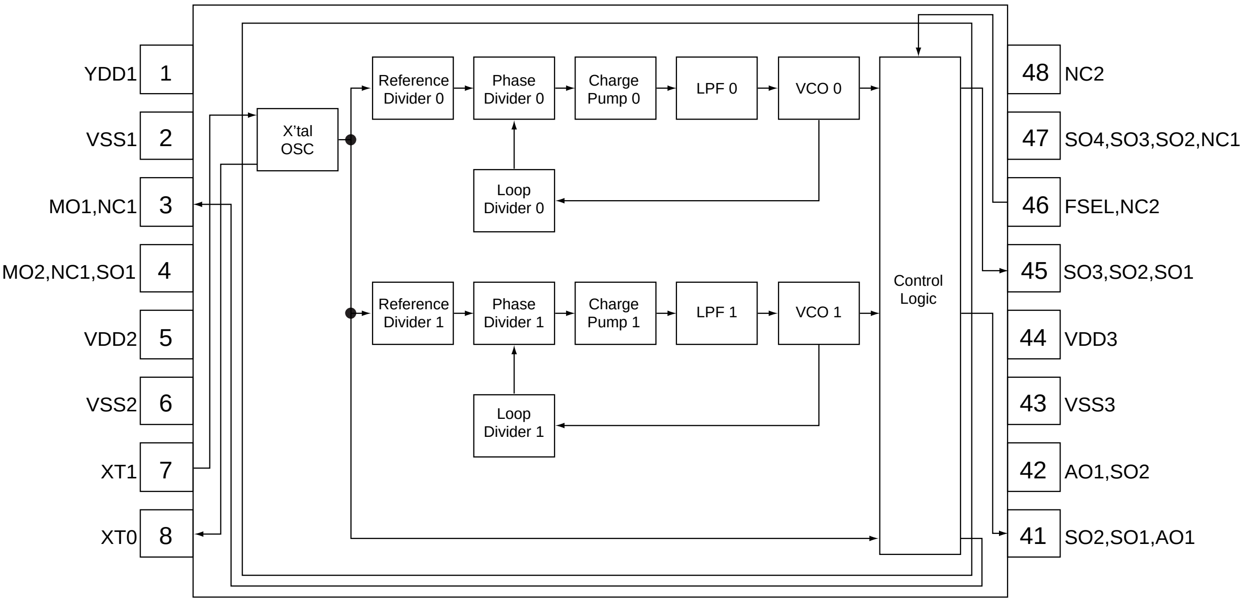
*TC7WH157FU


VCC
ST
SELECT
Y
8
7
6
5
EN
G1
1 MUX
1
1
2
3
4
A
B
Y
GND

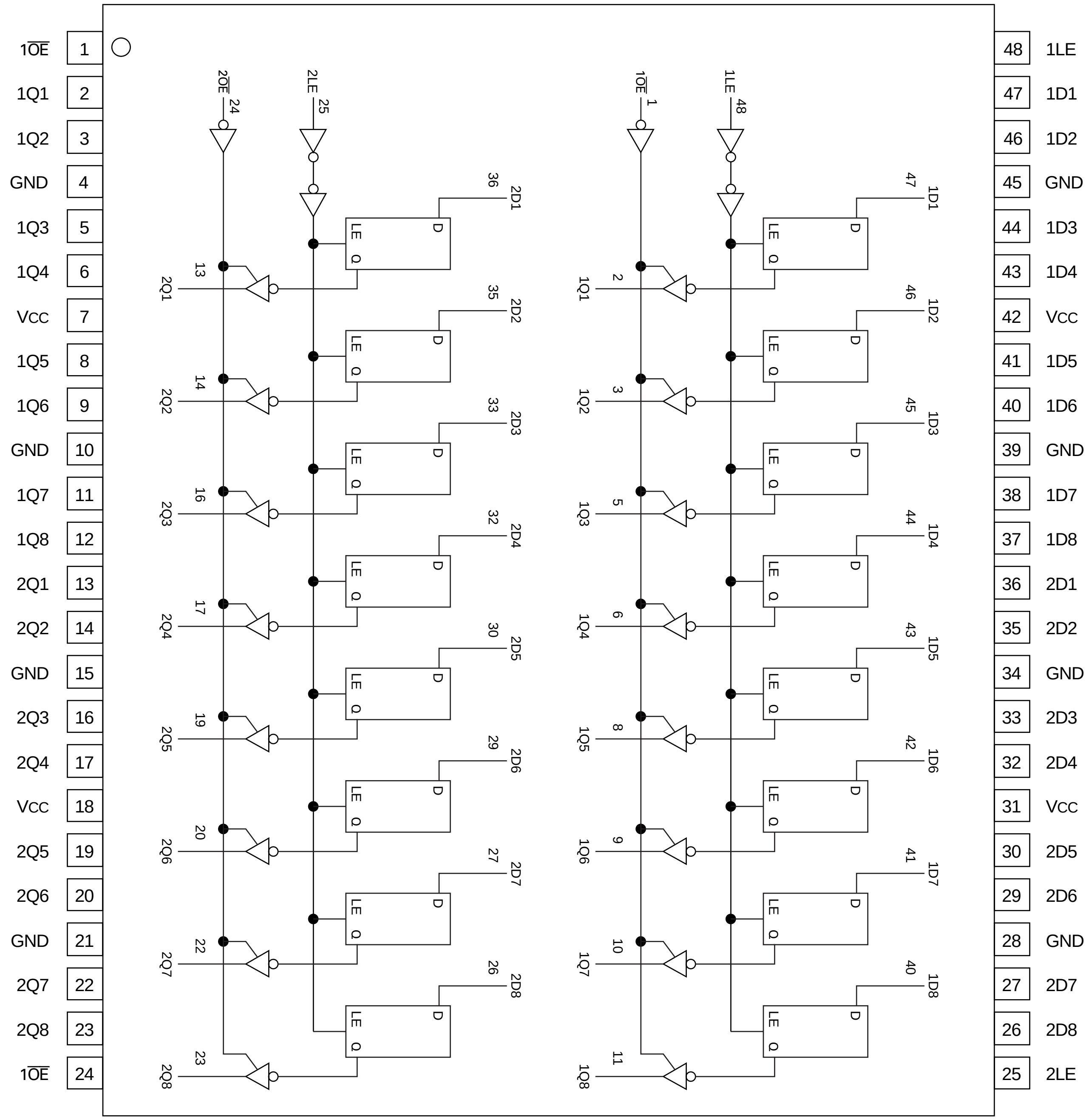
*R1130H501B


VDD
2
1
Vout
Vref
Current Limit
CE
5
3
GND

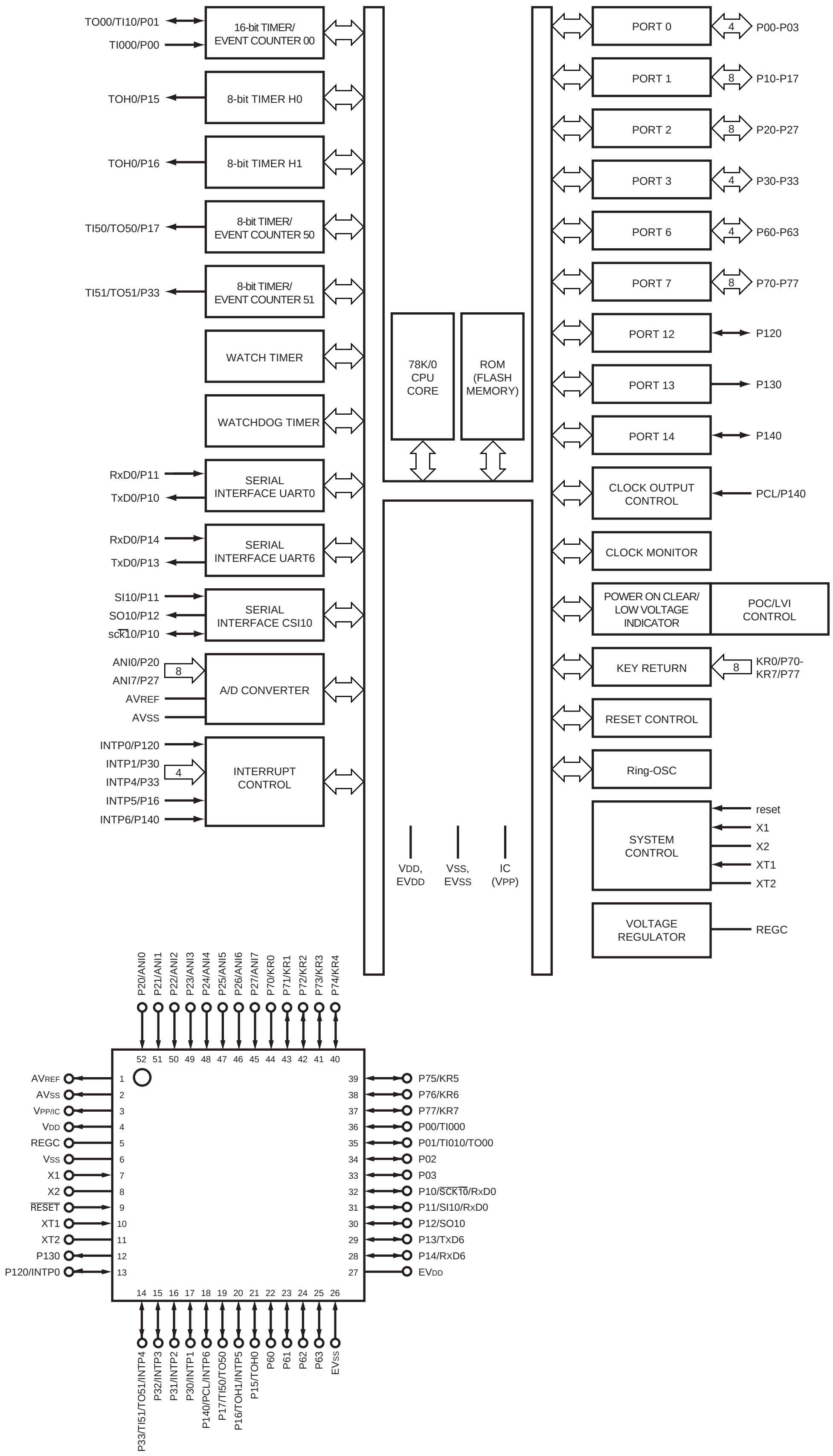
*SM8707LV


YDD1
1
VSS1
2
MO1,NC1
3
MO2,NC1,SO1
4
VDD2
5
VSS2
6
XT1
7
XT0
8
X'tal OSC
Reference Divider 0
Phase Divider 0
Charge Pump 0
LPF 0
VCO 0
Loop Divider 0
Reference Divider 1
Phase Divider 1
Charge Pump 1
LPF 1
VCO 1
Loop Divider 1
Control Logic
48
NC2
47
SO4,SO3,SO2,NC1
46
FSEL,NC2
45
SO3,SO2,SO1
44
VDD3
43
VSS3
42
AO1,SO2
41
SO2,SO1,AO1

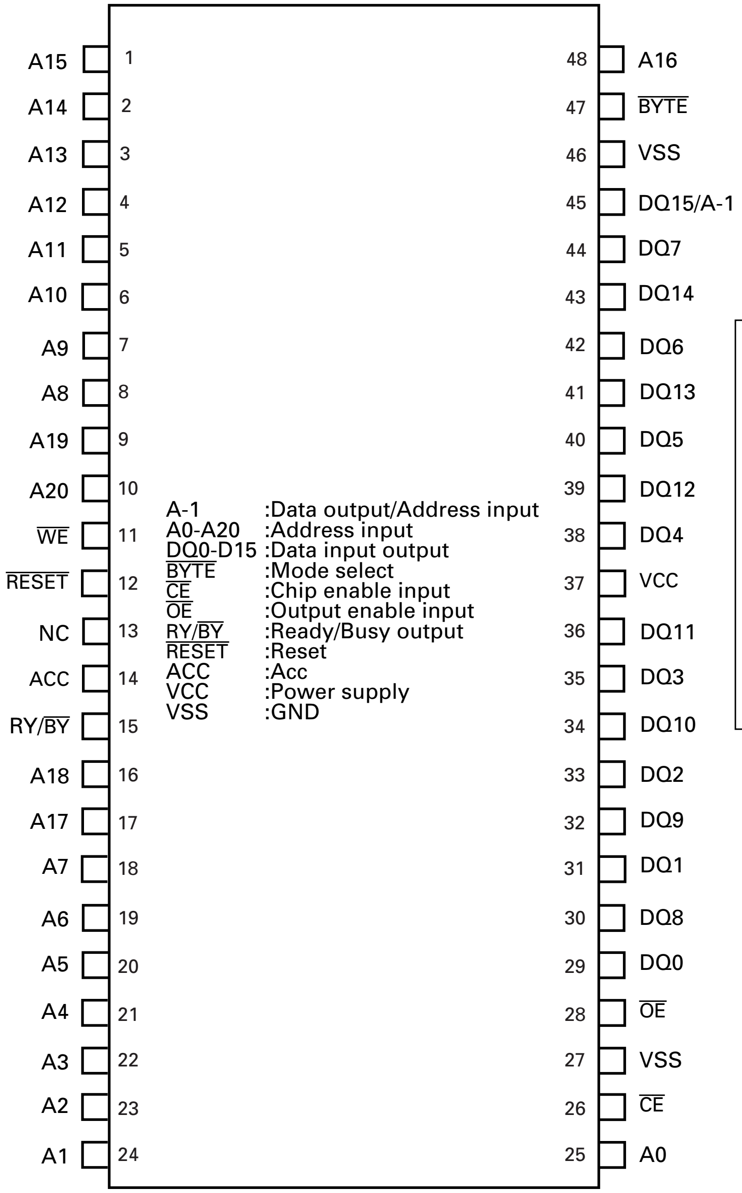
*TC74LCX16373AFT


1OE 1
1Q1 2
1Q2 3
GND 4
1Q3 5
1Q4 6
Vcc 7
1Q5 8
1Q6 9
GND 10
1Q7 11
1Q8 12
2Q1 13
2Q2 14
GND 15
2Q3 16
2Q4 17
Vcc 18
2Q5 19
2Q6 20
GND 21
2Q7 22
2Q8 23
1OE 24
48 1LE
47 1D1
46 1D2
45 GND
44 1D3
43 1D4
42 Vcc
41 1D5
40 1D6
39 GND
38 1D7
37 1D8
36 2D1
35 2D2
34 GND
33 2D3
32 2D4
31 Vcc
30 2D5
29 2D6
28 GND
27 2D7
26 2D8
25 2LE
2OE 24
2LE 25
1OE 1
1LE 48
LE
D
Q
36 2D1
35 2D2
33 2D3
32 2D4
30 2D5
29 2D6
27 2D7
26 2D8
47 1D1
46 1D2
45 1D3
44 1D4
43 1D5
42 1D6
41 1D7
40 1D8
13 2Q1
14 2Q2
16 2Q3
17 2Q4
19 2Q5
20 2Q6
22 2Q7
23 2Q8
2 1Q1
3 1Q2
5 1Q3
6 1Q4
8 1Q5
9 1Q6
10 1Q7
11 1Q8

*PE5401A

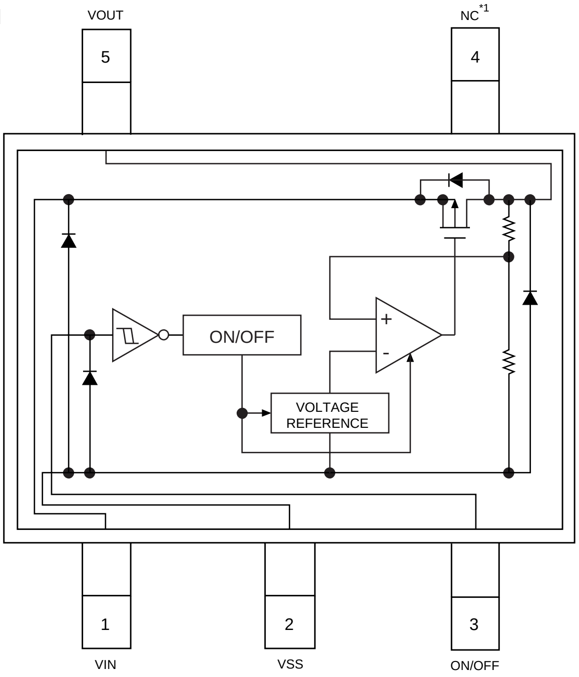

TO00/TI10/P01
TI000/P00
16-bit TIMER/ EVENT COUNTER 00
TOH0/P15
8-bit TIMER H0
TOH0/P16
8-bit TIMER H1
TI50/TO50/P17
8-bit TIMER/ EVENT COUNTER 50
TI51/TO51/P33
8-bit TIMER/ EVENT COUNTER 51
WATCH TIMER
WATCHDOG TIMER
RxD0/P11
TxD0/P10
SERIAL INTERFACE UART0
RxD0/P14
TxD0/P13
SERIAL INTERFACE UART6
SI10/P11
SO10/P12
$\overline{SCK}$10/P10
SERIAL INTERFACE CSI10
ANI0/P20
ANI7/P27
8
AVREF
AVSS
A/D CONVERTER
INTP0/P120
INTP1/P30
4
INTP4/P33
INTP5/P16
INTP6/P140
INTERRUPT CONTROL
78K/0 CPU CORE
ROM (FLASH MEMORY)
VDD, EVDD
VSS, EVSS
IC (VPP)
PORT 0
4
P00-P03
PORT 1
8
P10-P17
PORT 2
8
P20-P27
PORT 3
4
P30-P33
PORT 6
4
P60-P63
PORT 7
8
P70-P77
PORT 12
P120
PORT 13
P130
PORT 14
P140
CLOCK OUTPUT CONTROL
PCL/P140
CLOCK MONITOR
POWER ON CLEAR/ LOW VOLTAGE INDICATOR
POC/LVI CONTROL
KEY RETURN
8
KR0/P70- KR7/P77
RESET CONTROL
Ring-OSC
SYSTEM CONTROL
reset
X1
X2
XT1
XT2
VOLTAGE REGULATOR
REGC
P20/ANI0
P21/ANI1
P22/ANI2
P23/ANI3
P24/ANI4
P25/ANI5
P26/ANI6
P27/ANI7
P70/KR0
P71/KR1
P72/KR2
P73/KR3
P74/KR4
52 51 50 49 48 47 46 45 44 43 42 41 40
AVREF 1
AVSS 2
VPP/IC 3
VDD 4
REGC 5
VSS 6
X1 7
X2 8
$\overline{RESET}$ 9
XT1 10
XT2 11
P130 12
P120/INTP0 13
39 P75/KR5
38 P76/KR6
37 P77/KR7
36 P00/TI000
35 P01/TI010/TO00
34 P02
33 P03
32 P10/$\overline{SCK10}$/RxD0
31 P11/SI10/RxD0
30 P12/SO10
29 P13/TxD6
28 P14/RxD6
27 EVDD
14 15 16 17 18 19 20 21 22 23 24 25 26
P33/TI51/TO51/INTP4
P32/INTP3
P31/INTP2
P30/INTP1
P140/PCL/INTP6
P17/TI50/TO50
P16/TOH1/INTP5
P15/TOH0
P60
P61
P62
P63
EVSS

*PD6480B

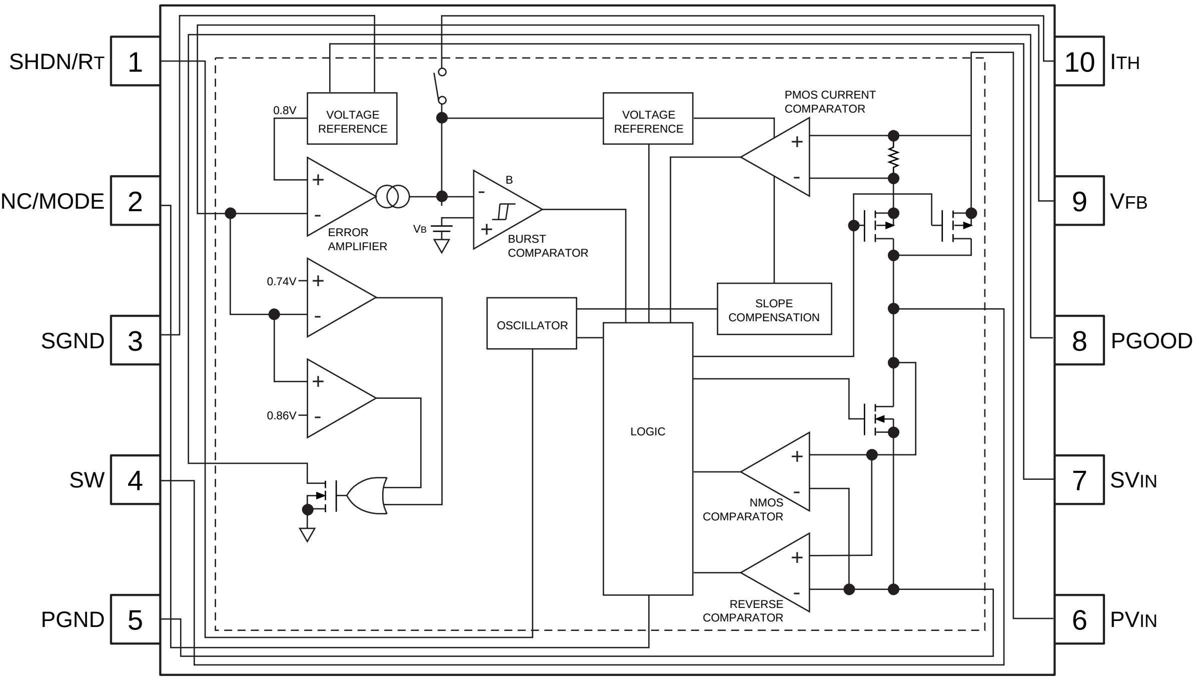

A15 1
A14 2
A13 3
A12 4
A11 5
A10 6
A9 7
A8 8
A19 9
A20 10
$\overline{WE}$ 11
$\overline{RESET}$ 12
NC 13
ACC 14
RY/$\overline{BY}$ 15
A18 16
A17 17
A7 18
A6 19
A5 20
A4 21
A3 22
A2 23
A1 24
48 A16
47 $\overline{BYTE}$
46 VSS
45 DQ15/A-1
44 DQ7
43 DQ14
42 DQ6
41 DQ13
40 DQ5
39 DQ12
38 DQ4
37 VCC
36 DQ11
35 DQ3
34 DQ10
33 DQ2
32 DQ9
31 DQ1
30 DQ8
29 DQ0
28 $\overline{OE}$
27 VSS
26 $\overline{CE}$
25 A0

A-1	:Data output/Address input
A0-A20	:Address input
DQ0-D15	:Data input output
$\overline{BYTE}$	:Mode select
$\overline{CE}$	:Chip enable input
$\overline{OE}$	:Output enable input
RY/$\overline{BY}$	:Ready/Busy output
$\overline{RESET}$	:Reset
ACC	:Acc
VCC	:Power supply
VSS	:GND

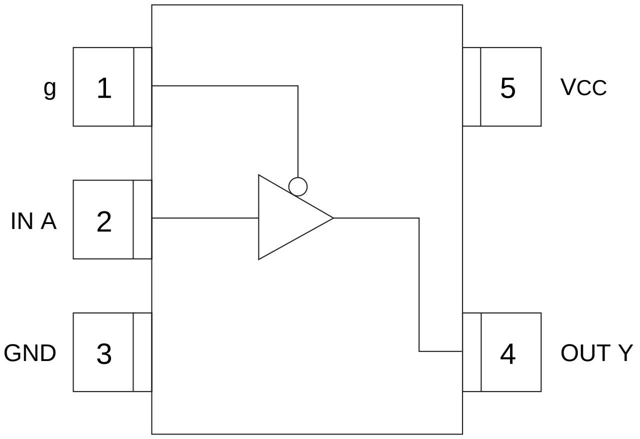
*S-L2980A50MC-C7J


VOUT
5
NC*1
4
ON/OFF
VOLTAGE REFERENCE
+
-
1
VIN
2
VSS
3
ON/OFF

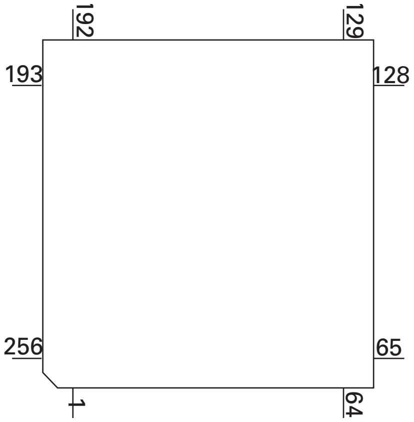
*LTC3411EMS


SHDN/RT
1
SYNC/MODE
2
SGND
3
SW
4
PGND
5
10
ITH
9
VFB
8
PGOOD
7
SVIN
6
PVIN
0.8V
VOLTAGE REFERENCE
ERROR AMPLIFIER
VB
B
BURST COMPARATOR
VOLTAGE REFERENCE
PMOS CURRENT COMPARATOR
0.74V
0.86V
OSCILLATOR
SLOPE COMPENSATION
LOGIC
NMOS COMPARATOR
REVERSE COMPARATOR

*TC7SZ125FU


g
1
IN A
2
GND
3
5
VCC
4
OUT Y

*MN35104UB


192
129
193
128
256
65
1
64

● Pin Functions(MN35104UB)

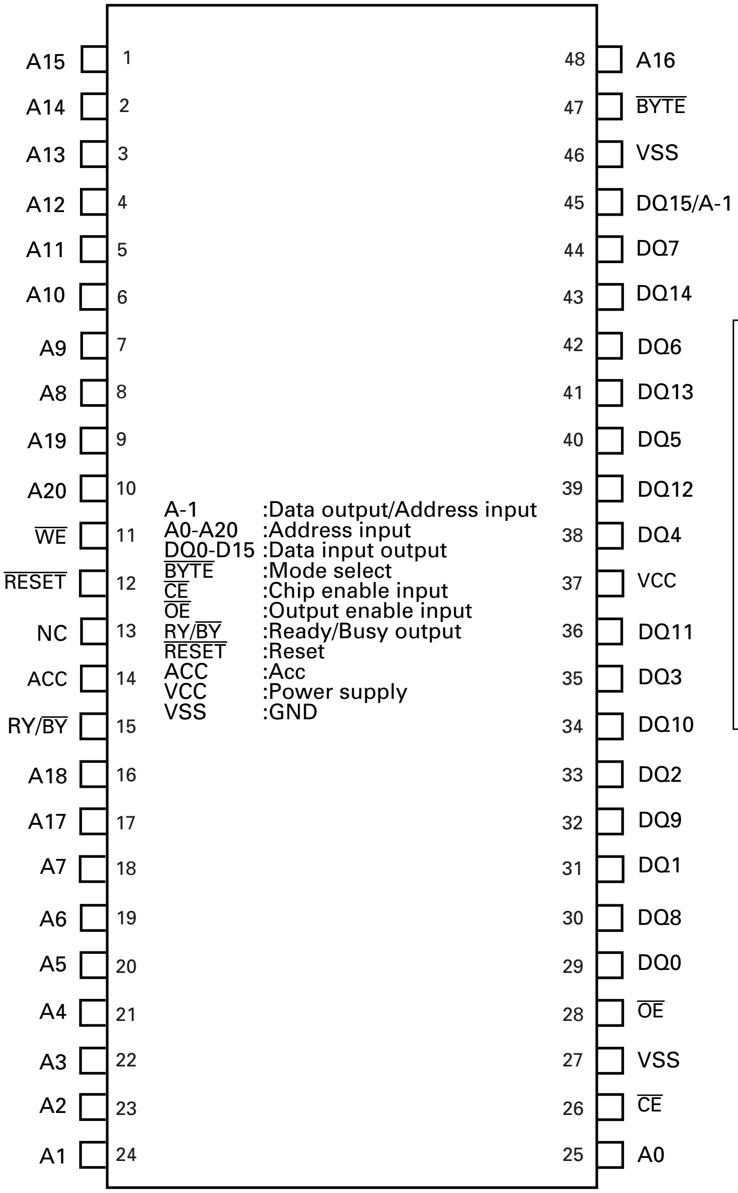
Pin No.	Pin Name	I/O	Function and Operation
1	VDD33		IO power supply
2,3	MDQ	I / O	SDRAM data
4	VSS		GND
5,6	MDQ	I / O	SDRAM data
7	VDD33		IO power supply
8,10	MDQ	I / O	SDRAM data
11	VSS		GND
12,13	MDQ	I / O	SDRAM data
14	VDD33		IO power supply
15	VDD15		Power supply
16	VSS		GND
17	EXADR	I / O	Memory address
18	NEXWE	O	Memory write enable
19-22	EXADT	I / O	Memory address data
23	VDD33		IO power supply
24	VSS		GND
25,26	EXADR	I / O	Memory address
27,28	EXADT	I / O	Memory address data
29	VDD33		IO power supply
30	VSS		GND
31,32	EXADT	I / O	Memory address data
33	NEXCE	O	Memory chip select
34-37	EXADT	I / O	Memory address data
38,39	EXADR	I / O	Memory address
40,41	EXADT	I / O	Memory address data
42	VD33		IO power supply
43	VSS		GND
44,45	EXADT	I / O	Memory address data
46	NEXOE	O	Memory output(Read) enable
47	P15	I / O	Memory address bus
48	P14	I / O	The flag of transmitting end
49	P13	I / O	The flag of transmitting start
50	P12	I / O	Serial clock
51	P11	I / O	Serial output data
52	P10	I / O	Serial input data
53	P9	I / O	Serial clock
54	P8	I / O	Serial output data
55	P7	I / O	Serial input data
56	VDD3		IO power supply
57	MMOD	I	Test mode setting
58	VSS		GND
59	P6	I / O	Serial clock

Pin No.	Pin Name	I/O	Function and Operation
60	P5	I / O	Serial output data
61	P4	I / O	Serial input data
62	P3	I / O	Serial clock
63	P2	I / O	Serial output data
64	P1	I / O	Serial input data
65	P0	I / O	Serial clock
66	FG	I	Motor FG
67	VDD15		Power supply
68	NRST	I	Master reset
69	VSS		GND
70-77	DRV	I / O	Servo port
78	DRV8		Servo port
79	VDD33		IO power supply
80	VSS	I / O	GND
81	SCLOCK	I / O	Input clock for debug
82	EXTRG	I / O	I/O trigger for debug
83	SDATA	I / O	I/O data for debug
84	EXTRG	I / O	I/O trigger for debug
85	TRCCLK	I / O	Output trace clock for debug
86-89	TRCDATA	I / O	I/O trace data for debug
90	TRCST	I / O	Output trace status for debug
91	VDD33		Power supply
92	OSCI	I	Front end clock input
93	VSS		GND
94-97	MONI	I / O	Inside monitor
98	VDD15		Power supply
99	VSS		GND
100-103	MONI	I / O	Inside monitor
104	AVDDD	O	Power supply
105	PLFIL1		DRC VCO
106	AVSSD	O	GND
107	PLFIL2	O	DRC VCO
108-110	VREF	I	Reference voltage
111	VC0	I	gm-cEQ
112	RESI	O	gm-cEQ
113	ANAMONI	O	Inside analog monitor
114	POFLT	O	DPDOFTR
115	CDATA		Inline data
116	CCAPA	O	Inline capacitor
117	CGD	O	Reference voltage
118	AVDDC		Analog current
119	AVSSC	I	Analog GND

Pin No.	Pin Name	I/O	Function and Operation
120	RFINN	I	RF input
121	RFINP	I	RF input
122-131	VIN	I	Head input
132	LPC1	O	DVDLPC input
133	LPCO1	I	DVDLPC output
134	LPC2	O	CDLPC input
135	LPCO2	O	CDLPC output
136	VREFH	O	Reference voltage
137	VHALF		Reference voltage
138	AVSSB	O	Analog GND
139	CTKC	I	TC
140	CSLFLT	O	Capasitor
141	CWBLOUT	I	DC cut for wobble
142	CWBLIN		DC cut for wobble
143	VCOF	I	JFVCO control voltage
144	RVI		VREFH reference current
145	AVDDB	I	Analog current
146-148	AD	I	AD input
149	AVDDA		Analog current
150	DAC1	O	Tracking drive output
151	AVSSA		Analog GND
152	DAC0	O	Focus drive output
153	AVDDE		Analog current
154	IREF1	I	Inside DAC bias current
155	AVSSE		Analog GND
156	COMP1	I	Inside DAC
157	AVDDF		Analog current
158	DAC1OUT	O	Analog signal
159	AVSSF		Analog GND
160	DAC2OUT	O	Analog signal
161	DAC3OUT	O	Analog signal
162	VREF	I	Reference voltage
163	DAC4OUT	O	Analog signal
164	DAC5OUT	O	Analog signal
165	AVDDG	I	Analog power suplly
166	IREF2		Inside DAC bias current
167	VSSG	I	Analog GND
168	COMP2		Inside DAC
169	VSS	I	GND
170	BECLK		Backend clock input
171	VDD33	I	IO power supply
172	EXTCK		Exterior audio clock

Pin No.	Pin Name	I/O	Function and Operation
173	PHCOMPO		Composite audio clock
174	LRCK	O	LR chanel clock output
175	SRCK	O	Bit clock output
176	ADOUT3	O	Audio down mixing
177	VSS	O	GND
178-180	ADOUT	O	Audio data
181	IECOUT	O	IEC958 digital audio output
182	VDD33		IO power supply
183	VSS		GND
184,185	MDQ	I / O	SDRAM data
186	VDD15		Power supply
187,188	MDQ	I / O	SDRAM data
189	VDD33		IO power supply
190-193	MDQ	I / O	SDRAM data
194	VSS		GND
195	VDD33		IO power supply
196,197	MDQ	I / O	SDRAM data
198	VSS		GND
199,201	MDQ	I / O	SDRAM data
202	VDD33		GND
203-205	MDQ	I / O	SDRAM data
206	VSS		GND
207,208	DQM	O	SDRAM data mask
209	VDD33		Power supply
210	MA	O	SDRAM address
211	VSS		GND
212	MA4	O	SDRAM address
213	VDD15		Power supply
214	MA2	O	SDRAM address
215	VSS		GND
216,217	MA	O	SDRAM address
218	VDD33		Power supply
219-220	MA	O	SDRAM address
221	VSS		GND
222	VDD15		Power supply
223	MCKI	I	SDRAM output clock
224	VSS		GND
225	MCK	O	SDRAM input clock
226	VDD33		IO power supply
227-229	MA	O	SDRAM address
230	VSS		GND
231	MA	O	SDRAM address

*PD6480B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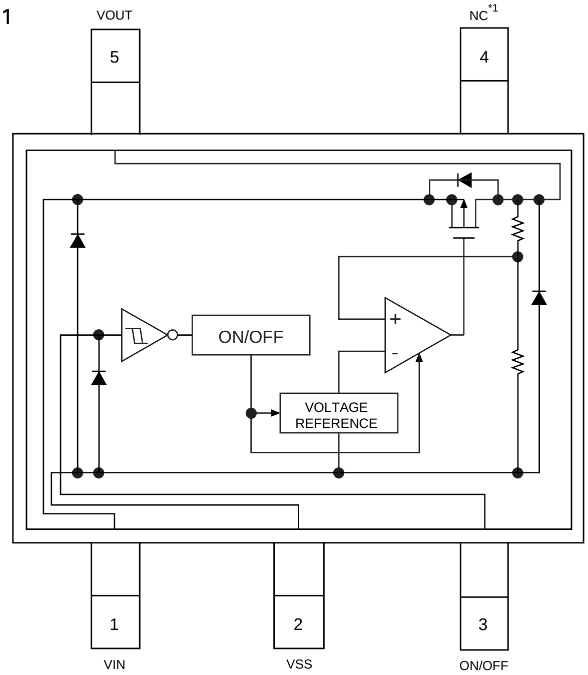
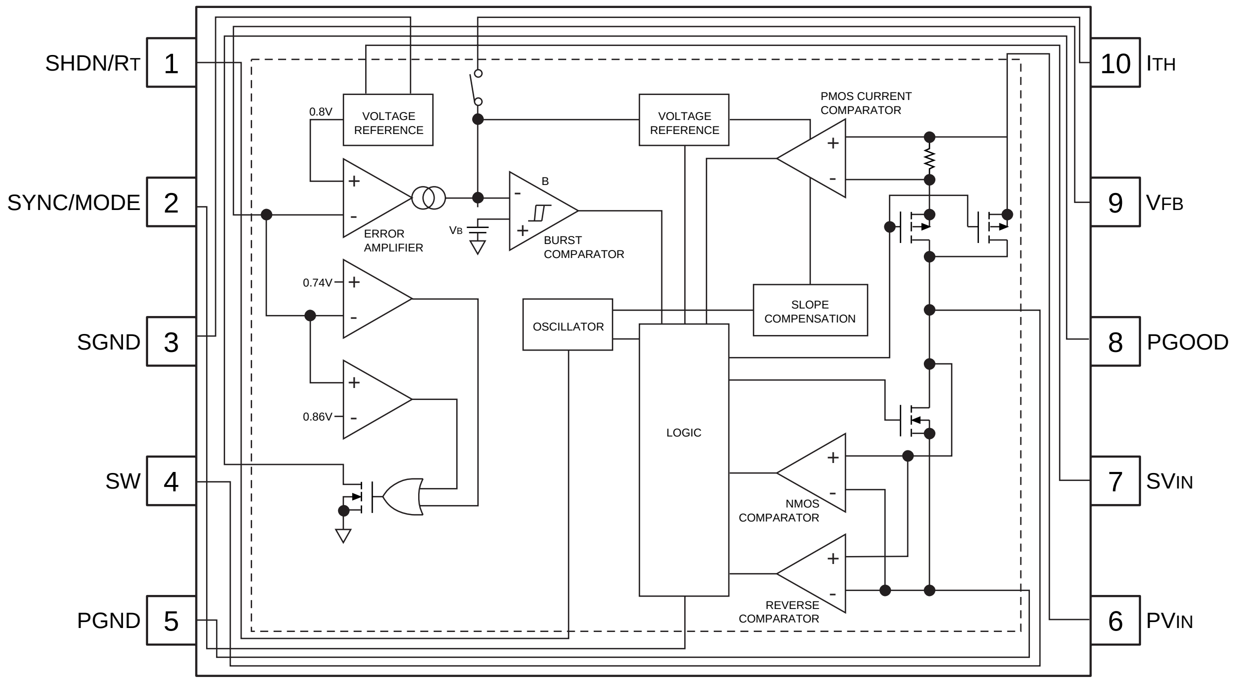
A14 2
A13 3
A12 4
A11 5
A10 6
A9 7
A8 8
A19 9
A20 10
WE 11
RESET 12
NC 13
ACC 14
RY/BY 15
A18 16
A17 17
A7 18
A6 19
A5 20
A4 21
A3 22
A2 23
A1 24
48 A16
47 BYTE
46 VSS
45 DQ15/A-1
44 DQ7
43 DQ14
42 DQ6
41 DQ13
40 DQ5
39 DQ12
38 DQ4
37 VCC
36 DQ11
35 DQ3
34 DQ10
33 DQ2
32 DQ9
31 DQ1
30 DQ8
29 DQ0
28 OE
27 VSS
26 CE
25 A0

A-1	:Data output/Address input
A0-A20	:Address input
DQ0-D15	:Data input output
BYTE	:Mode select
CE	:Chip enable input
OE	:Output enable input
RY/BY	:Ready/Busy output
RESET	:Reset
ACC	:Acc
VCC	:Power supply
VSS	:GND

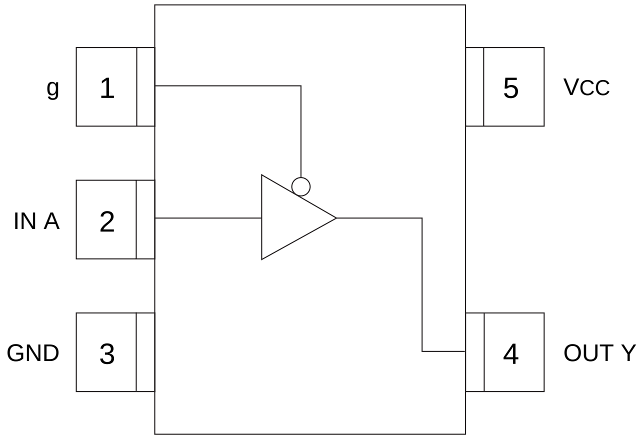
*S-L2980A50MC-C7J


VOUT
5
NC*1
4
ON/OFF
+
-
VOLTAGE REFERENCE
1
VIN
2
VSS
3
ON/OFF

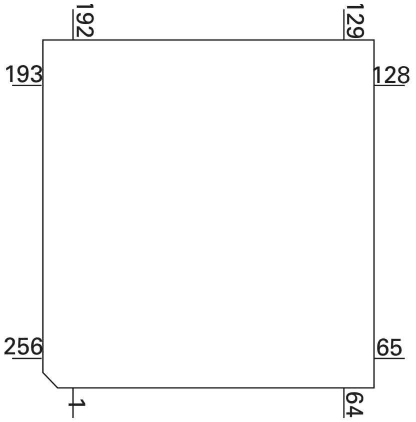
*LTC3411EMS


SHDN/RT
1
SYNC/MODE
2
SGND
3
SW
4
PGND
5
10
ITH
9
VFB
8
PGOOD
7
SVIN
6
PVIN
0.8V
VOLTAGE REFERENCE
ERROR AMPLIFIER
B
VB
BURST COMPARATOR
VOLTAGE REFERENCE
PMOS CURRENT COMPARATOR
0.74V
0.86V
OSCILLATOR
SLOPE COMPENSATION
LOGIC
NMOS COMPARATOR
REVERSE COMPARATOR

*TC7SZ125FU


g
1
IN A
2
GND
3
5
VCC
4
OUT Y

*MN35104UB


192
129
193
128
256
65
1
64

Pin Functions(MN35104UB)

Pin No.	Pin Name	I/O	Function and Operation
1	VDD33		IO power supply
2,3	MDQ	I / O	SDRAM data
4	VSS		GND
5,6	MDQ	I / O	SDRAM data
7	VDD33		IO power supply
8,10	MDQ	I / O	SDRAM data
11	VSS		GND
12,13	MDQ	I / O	SDRAM data
14	VDD33		IO power supply
15	VDD15		Power supply
16	VSS		GND
17	EXADR	I / O	Memory address
18	NEXWE	O	Memory write enable
19-22	EXADT	I / O	Memory address data
23	VDD33		IO power supply
24	VSS		GND
25,26	EXADR	I / O	Memory address
27,28	EXADT	I / O	Memory address data
29	VDD33		IO power supply
30	VSS		GND
31,32	EXADT	I / O	Memory address data
33	NEXCE	O	Memory chip select
34-37	EXADT	I / O	Memory address data
38,39	EXADR	I / O	Memory address
40,41	EXADT	I / O	Memory address data
42	VD33		IO power supply
43	VSS		GND
44,45	EXADT	I / O	Memory address data
46	NEXOE	O	Memory output(Read) enable
47	P15	I / O	Memory address bus
48	P14	I / O	The flag of transmitting end
49	P13	I / O	The flag of transmitting start
50	P12	I / O	Serial clock
51	P11	I / O	Serial output data
52	P10	I / O	Serial input data
53	P9	I / O	Serial clock
54	P8	I / O	Serial output data
55	P7	I / O	Serial input data
56	VDD3		IO power supply
57	MMOD	I	Test mode setting
58	VSS		GND
59	P6	I / O	Serial clock

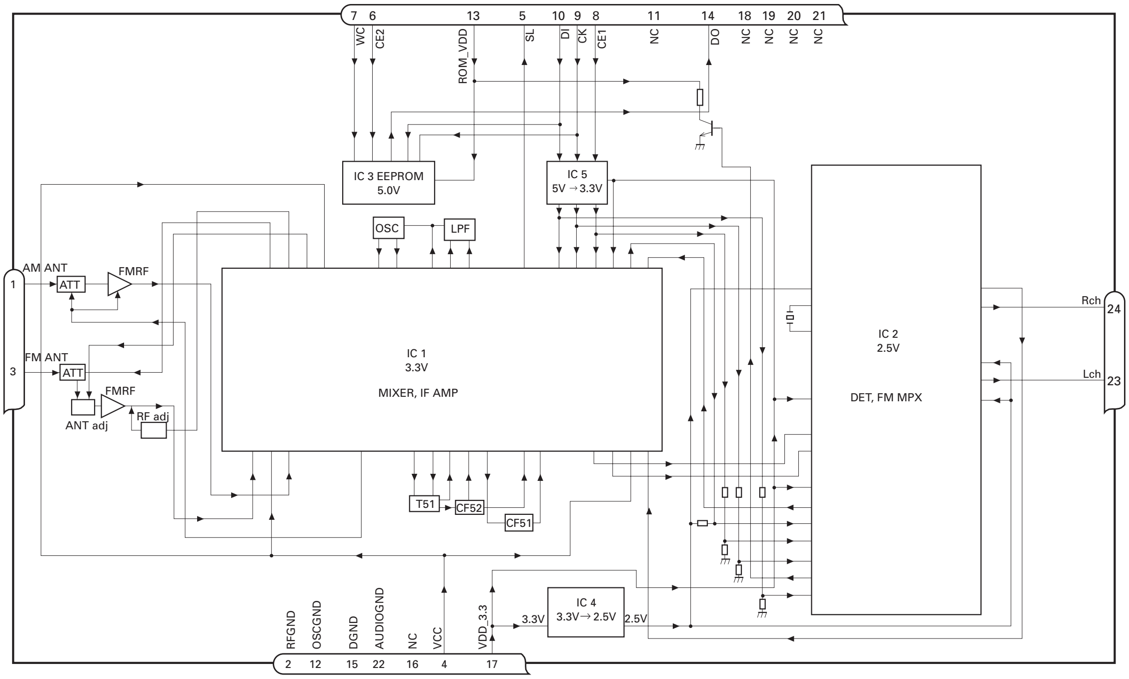
Pin No.	Pin Name	I/O	Function and Operation
60	P5	I / O	Serial output data
61	P4	I / O	Serial input data
62	P3	I / O	Serial clock
63	P2	I / O	Serial output data
64	P1	I / O	Serial input data
65	P0	I / O	Serial clock
66	FG	I	Motor FG
67	VDD15		Power supply
68	NRST	I	Master reset
69	VSS		GND
70-77	DRV	I / O	Servo port
78	DRV8		Servo port
79	VDD33		IO power supply
80	VSS	I / O	GND
81	SCLOCK	I / O	Input clock for debug
82	EXTRG	I / O	I/O trigger for debug
83	SDATA	I / O	I/O data for debug
84	EXTRG	I / O	I/O trigger for debug
85	TRCCLK	I / O	Output trace clock for debug
86-89	TRCDATA	I / O	I/O trace data for debug
90	TRCST	I / O	Output trace status for debug
91	VDD33		Power supply
92	OSCI	I	Front end clock input
93	VSS		GND
94-97	MONI	I / O	Inside monitor
98	VDD15		Power supply
99	VSS		GND
100-103	MONI	I / O	Inside monitor
104	AVDDD	O	Power supply
105	PLFIL1		DRC VCO
106	AVSSD	O	GND
107	PLFIL2	O	DRC VCO
108-110	VREF	I	Reference voltage
111	VC0	I	gm-cEQ
112	RESI	O	gm-cEQ
113	ANAMONI	O	Inside analog monitor
114	POFLT	O	DPDOFTR
115	CDATA		Inline data
116	CCAPA	O	Inline capacitor
117	CGD	O	Reference voltage
118	AVDDC		Analog current
119	AVSSC	I	Analog GND

Pin No.	Pin Name	I/O	Function and Operation
120	RFINN	I	RF input
121	RFINP	I	RF input
122-131	VIN	I	Head input
132	LPC1	O	DVDLPC input
133	LPCO1	I	DVDLPC output
134	LPC2	O	CDLPC input
135	LPCO2	O	CDLPC output
136	VREFH	O	Reference voltage
137	VHALF		Reference voltage
138	AVSSB	O	Analog GND
139	CTKC	I	TC
140	CSLFLT	O	Capasitor
141	CWBLOUT	I	DC cut for wobble
142	CWBLIN		DC cut for wobble
143	VCOF	I	JFVCO control voltage
144	RVI		VREFH reference current
145	AVDDB	I	Analog current
146-148	AD	I	AD input
149	AVDDA		Analog current
150	DAC1	O	Tracking drive output
151	AVSSA		Analog GND
152	DAC0	O	Focus drive output
153	AVDDE		Analog current
154	IREF1	I	Inside DAC bias current
155	AVSSE		Analog GND
156	COMP1	I	Inside DAC
157	AVDDF		Analog current
158	DAC1OUT	O	Analog signal
159	AVSSF		Analog GND
160	DAC2OUT	O	Analog signal
161	DAC3OUT	O	Analog signal
162	VREF	I	Reference voltage
163	DAC4OUT	O	Analog signal
164	DAC5OUT	O	Analog signal
165	AVDDG	I	Analog power suplly
166	IREF2		Inside DAC bias current
167	VSSG	I	Analog GND
168	COMP2		Inside DAC
169	VSS	I	GND
170	BECLK		Backend clock input
171	VDD33	I	IO power supply
172	EXTCK		Exterior audio clock

Pin No.	Pin Name	I/O	Function and Operation
173	PHCOMPO		Composite audio clock
174	LRCK	O	LR chanel clock output
175	SRCK	O	Bit clock output
176	ADOUT3	O	Audio down mixing
177	VSS	O	GND
178-180	ADOUT	O	Audio data
181	IECOUT	O	IEC958 digital audio output
182	VDD33		IO power supply
183	VSS		GND
184,185	MDQ	I / O	SDRAM data
186	VDD15		Power supply
187,188	MDQ	I / O	SDRAM data
189	VDD33		IO power supply
190-193	MDQ	I / O	SDRAM data
194	VSS		GND
195	VDD33		IO power supply
196,197	MDQ	I / O	SDRAM data
198	VSS		GND
199,201	MDQ	I / O	SDRAM data
202	VDD33		GND
203-205	MDQ	I / O	SDRAM data
206	VSS		GND
207,208	DQM	O	SDRAM data mask
209	VDD33		Power supply
210	MA	O	SDRAM address
211	VSS		GND
212	MA4	O	SDRAM address
213	VDD15		Power supply
214	MA2	O	SDRAM address
215	VSS		GND
216,217	MA	O	SDRAM address
218	VDD33		Power supply
219-220	MA	O	SDRAM address
221	VSS		GND
222	VDD15		Power supply
223	MCKI	I	SDRAM output clock
224	VSS		GND
225	MCK	O	SDRAM input clock
226	VDD33		IO power supply
227-229	MA	O	SDRAM address
230	VSS		GND
231	MA	O	SDRAM address

Pin No.	Pin Name	I/O	Function and Operation
232	NWE	O	SDRAM writte enable
233	VDD33		IO power supply
234	BA0	O	SDRAM bank address
235	MA	O	SDRAM address
236	VSS		GND
237	BA1	O	SDRAM bank address
238	NCSM	O	SDRAM chip select
239	NRAS	O	SDRAM low address strobe
240	VDD33		IO power supply
241	VSS		GND
242	NCAS	O	SDRAM column address strobe
243	DQM0	O	SDRAM data mask
244	VDD15		Power supply
245	VSS		GND
246	DQM	O	SDRAM data mask
247	MDQ	I / O	SDRAM data
248	VSS		GND
249	MDQ	I / O	SDRAM data
250	VDD33		IO power supply
251-253	MDQ	I / O	SDRAM data
254	VSS		GND
255,256	MDQ	I / O	SDRAM data

● FM/AM Tuner Unit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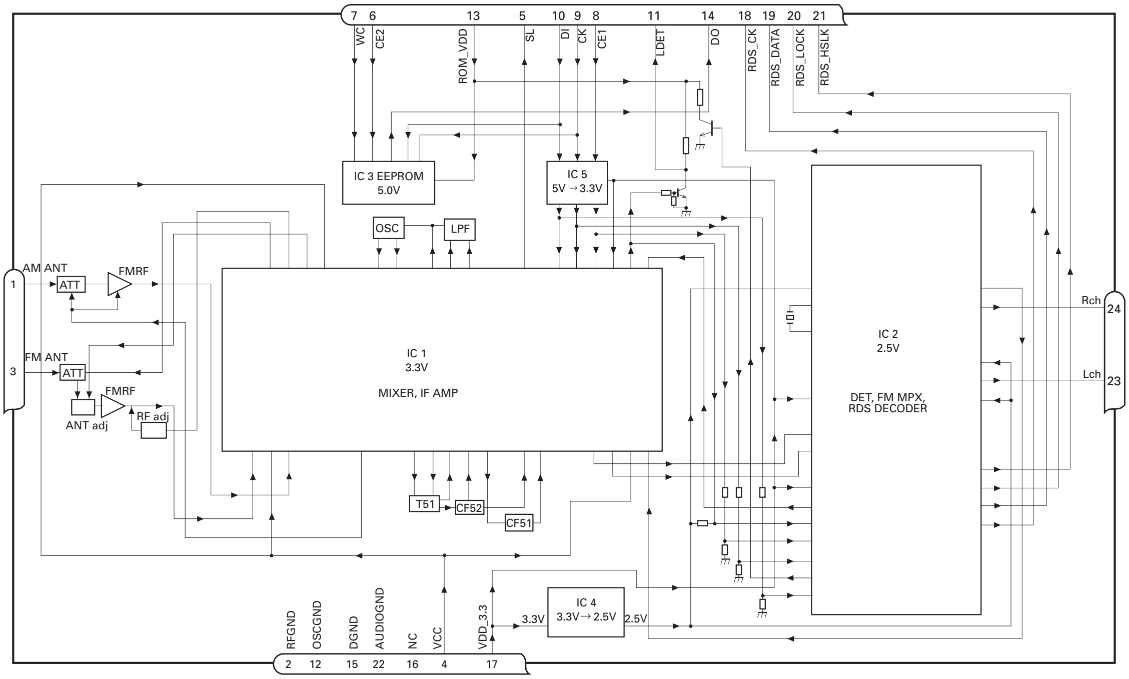
WC
CE2
ROM_VDD
SL
DI
CK
CE1
NC
DO
NC
NC
NC
NC
IC 3 EEPROM
5.0V
IC 5
5V → 3.3V
OSC
LPF
AM ANT
1
ATT
FMRF
FM ANT
3
ATT
FMRF
RF adj
ANT adj
IC 1
3.3V
MIXER, IF AMP
IC 2
2.5V
DET, FM MPX
Rch
24
Lch
23
T51
CF52
CF51
IC 4
3.3V→2.5V
3.3V
2.5V
RFGND
OSCGND
DGND
AUDIOGND
NC
VCC
VDD_3.3
2 12 15 22 16 4 17

No.	Symbol	I/O	Explain	
1	AMANT	I	AM antenna input	AM antenna input high impedance AMANT pin is connected with an all antenna by way of 4.7μH. (LAU type inductor) A series circuit including an inductor and a resistor is connected with RF ground for the countermeasure against the ham of power transmission line.
2	RFGND		RF ground	Ground of antenna block
3	FMANT	I	FM antenna input	Input of FM antenna 75Ω Surge absorber(DSP-201M-S00B) is necessary.
4	VCC		power supply	The power supply for analog block. D.C 8.4V ± 0.3V
5	SL	O	signal level	Output of FM/AM signals level
6	CE2	I	chip enable-2	Chip enable for EEPROM "Low" active
7	WC	I	write control	You can write EEPROM, when EEPROM write control is "Low". Ordinary non connection
8	CE1	I	chip enable-1	Chip enable for AF•RF "High" active
9	CK	I	clock	Clock
10	DI	I	data in	Data input
11	NC		non connection	Not used
12	OSCGND		osc ground	Ground of oscillator block
13	ROM_VDD		power supply	Power supply for EEPROM pin 13 is connected with a power supply of micro computer.
14	DO	O	data out	Data output
15	DGND		digital ground	Ground of digital block
16	NC		non connection	Not used
17	VDD_3.3		power supply	The power supply for digital block. 3.3V ± 0.2V
18	NC		non connection	Not used
19	NC		non connection	Not used
20	NC		non connection	Not used
21	NC		non connection	Not used
22	AUDIOGND		audio ground	Ground of audio block
23	L ch	O	L channel output	FM stereo "L-ch" signal output or AM audio output
24	R ch	O	R channel output	FM stereo "R-ch" signal output or AM audio output

EW model

● FM/AM Tuner Unit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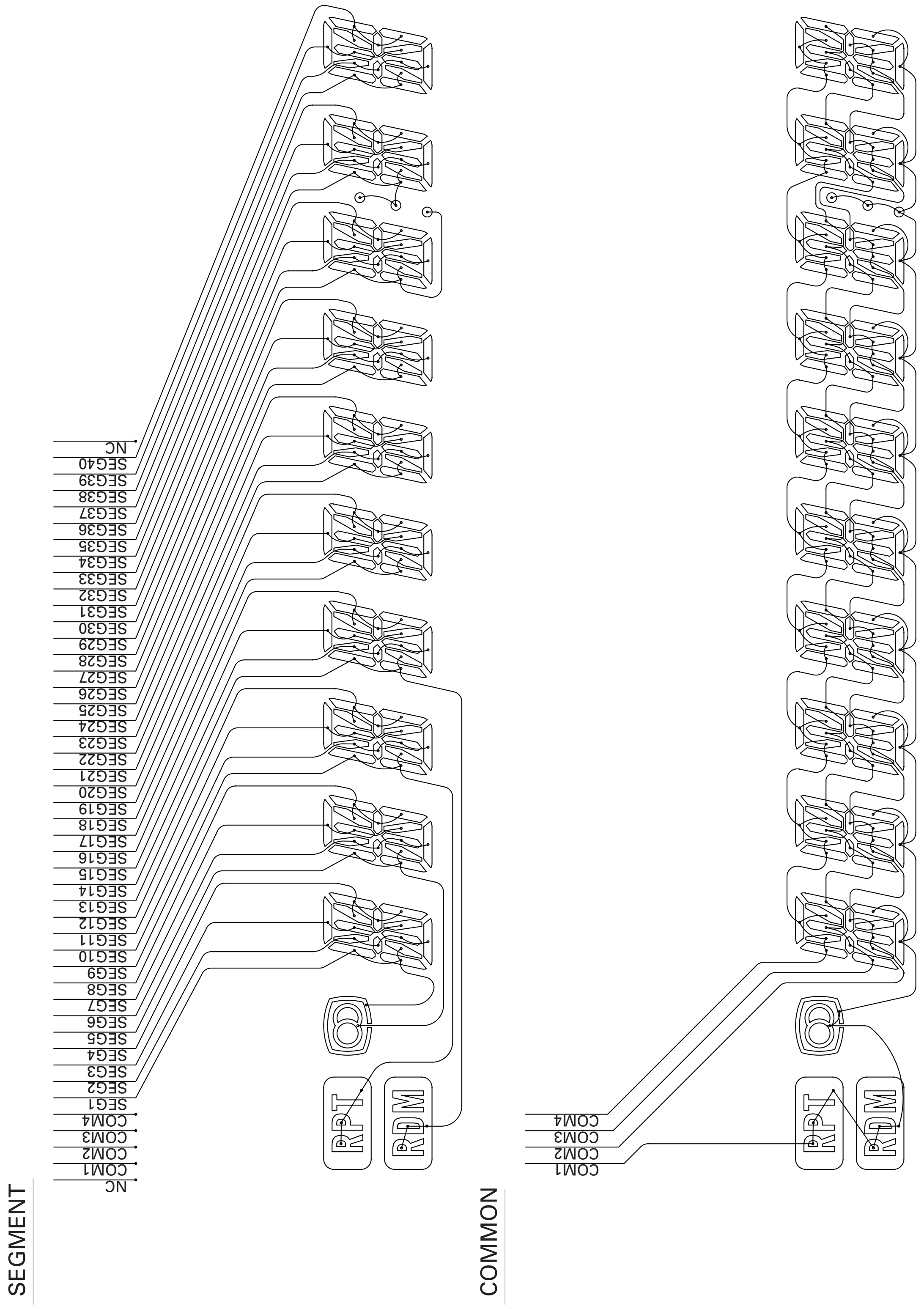
WC
CE2
ROM_VDD
SL
DI
CK
CE1
LDET
DO
RDS_CK
RDS_DATA
RDS_LOCK
RDS_HSLK
IC 3 EEPROM
5.0V
IC 5
5V → 3.3V
OSC
LPF
AM ANT
1
ATT
FMRF
FM ANT
3
ATT
FMRF
ANT adj
RF adj
IC 1
3.3V
MIXER, IF AMP
IC 2
2.5V
DET, FM MPX,
RDS DECODER
Rch
24
Lch
23
T51
CF52
CF51
IC 4
3.3V → 2.5V
3.3V
2.5V
RFGND
OSCGND
DGND
AUDIOGND
NC
VCC
VDD_3.3
2 12 15 22 16 4 17

No.	Symbol	I/O	Explain	
1	AMANT	I	AM antenna input	AM antenna input high impedance AMANT pin is connected with an all antenna by way of 4.7µH. (LAU type inductor) A series circuit including an inductor and a resistor is connected with RF ground for the countermeasure against the ham of power transmission line.
2	RFGND		RF ground	Ground of antenna block
3	FMANT	I	FM antenna input	Input of FM antenna 75Ω Surge absorber(DSP-201M-S00B) is necessary.
4	VCC		power supply	The power supply for analog block. D.C 8.4V ± 0.3V
5	SL	O	signal level	Output of FM/AM signals level
6	CE2	I	chip enable-2	Chip enable for EEPROM ”Low” active
7	WC	I	write control	You can write EEPROM, when EEPROM write control is “Low”. Ordinary non connection
8	CE1	I	chip enable-1	Chip enable for AF•RF ”High” active
9	CK	I	clock	Clock
10	DI	I	data in	Data input
11	LDET	O	lock detector	“Low” active
12	OSCGND		osc ground	Ground of oscillator block
13	ROM_VDD		power supply	Power supply for EEPROM pin 13 is connected with a power supply of micro computer.
14	DO	O	data out	Data output
15	DGND		digital ground	Ground of digital block
16	NC		non connection	Not used
17	VDD_3.3		power supply	The power supply for digital block. 3.3V ± 0.2V
18	RDS_CK	O	RDS clock	Output of RDS clock(2.5V)
19	RDS_DATA	O	RDS data	Output of RDS data(2.5V)
20	RDS_LOCK	O	RDS lock	Output unit “High” active(2.5V) (RDS_LOCK turns over by the external transistor. “Low” active)
21	RDS_HSLK	O	RDS high speed lock	Output unit “High” active(2.5V)(RDS_HSLK turns over by the external transistor. “Low” active)
22	AUDIOGND		audio ground	Ground of audio block
23	L ch	O	L channel output	FM stereo “L-ch” signal output or AM audio output
24	R ch	O	R channel output	FM stereo “R-ch” signal output or AM audio output

7.2.2 DISPLAY

● LCD(CAW1805)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SEG40
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SEG38
SEG37
SEG36
SEG35
SEG34
SEG33
SEG32
SEG31
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SEG27
SEG26
SEG25
SEG24
SEG23
SEG22
SEG21
SEG20
SEG19
SEG18
SEG17
SEG16
SEG15
SEG14
SEG13
SEG12
SEG11
SEG10
SEG9
SEG8
SEG7
SEG6
SEG5
SEG4
SEG3
SEG2
SEG1
COM4
COM3
COM2
COM1
NC
SEGMENT
RPT
RDM
COM4
COM3
COM2
COM1
COMMON
RPT
RDM

7.3 EXPLANATION

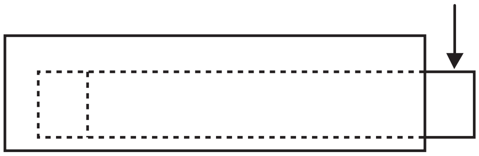
7.3.1 MECHANISM DESCRIPTIONS

● Outline of the FLAP motion

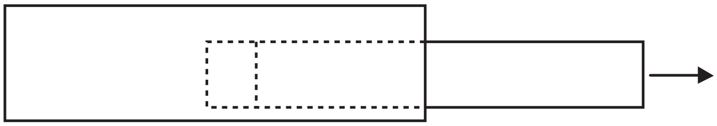
1. The motion is actuated made by two motors, the forward/backward driving motor (CXB9515) and the angle driving motor (CXB9516).
2. Analog electric potential generated by the angle encoder is detected to detect angle motion status and motion position.
3. Memory function for the angle last position is accomplished by the micro processor using the 256 resolution steps of the VDD.
4. A pulse is detected by the photo interrupter to detect the horizontal motion status.
5. In the case of reset start, the monitor will be in a stored position first, and ejection motion will take place, which puts the system in the booted up state.
6. Angle adjustment is made by the angle key (+/-).
7. OPEN/CLOSE key makes the monitor stored or ejected, and temporary folding key folds the monitor temporarily.
8. Setting of the monitor auto storage/ejection ON/OFF and set back ON/OFF at the time of ACC ON/OFF is made on the navigation menu screen.
9. A backlight is switched-off during forward/backward and storage.

● Explanation on the FLAP ejection motion

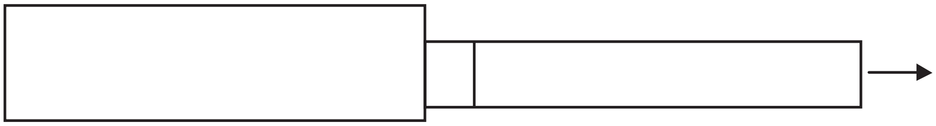
1. When the OPEN key is pressed or ACC is set to ON while the auto OPEN/CLOSE is being set to ON, angle driving motor rotates in the 0° direction for 500ms. (Pressed down.)



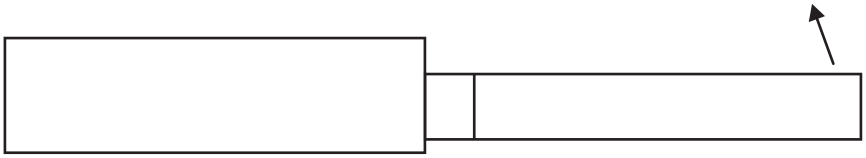
2. After 500ms, the angle driving motor is stopped, and the forward/backward driving motor rotates in the ejection direction.



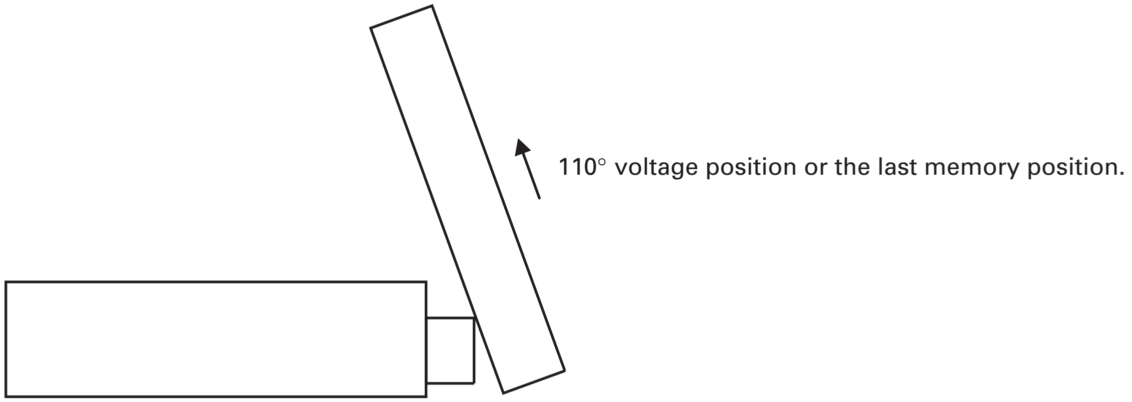
3. For a period of 600ms from the time when LIFTSW is switched from H to L, the forward/backward driving motor keeps rotating in the ejection direction.



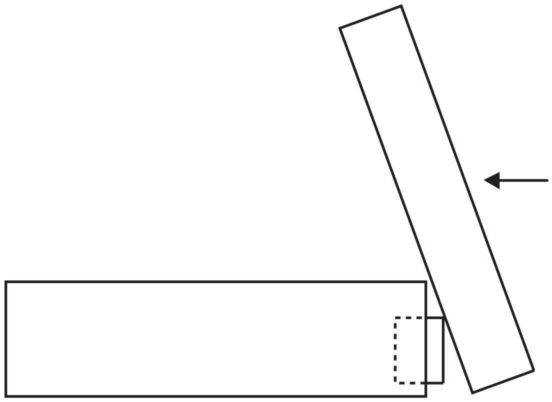
4. After 600ms, the forward/backward driving motor is stopped, and the angle driving motor rotates in the UP direction.



5. When the angle voltage reaches the voltage for 110°, brake is applied to the angle driving motor, and the ejection is completed. (In case the previous angle is stored in the memory, the motion continues to that angle.)

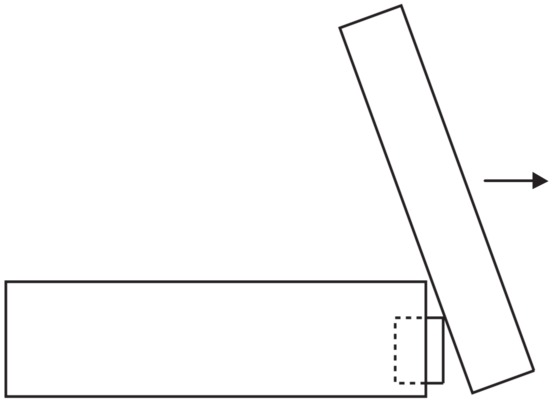


6. When the setback is set to ON, after the monitor angle voltage has reached the previously memorized voltage, brake is applied to the angle driving motor, then the forward/backward driving motor is rotated in slow speed in the storage direction. After that, when LIFTSW has switched from L to H, the forward/backward driving motor is stopped.

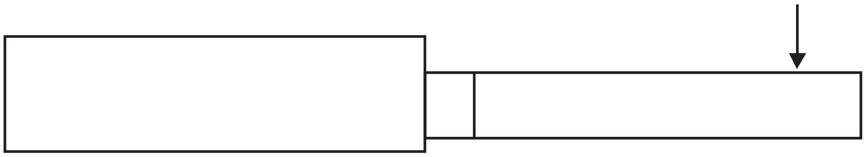


● Explanation of the FLAP storage motion

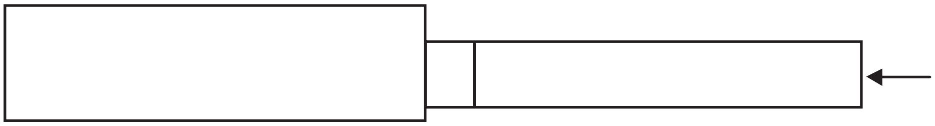
1. When CLOSE key is pressed, or after 6 seconds from ACC OFF when auto OPEN/CLOSE is being set to ON, the angle driving motor is rotated in the 0° direction. In case the setback setting is ON, the forward/backward driving motor is rotated in high speed in the ejection direction and the motor continues to rotate for 600ms from the time when LIFTSW is switched from H to L, then the angle driving motor is rotated in the 0° direction.



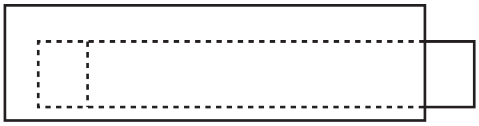
2. For a period of 500ms from the time when DIGOSW is switched from H to L, the angle driving motor is rotated in the 0° direction for the "pressed down" motion.



3. After 500ms, brake is applied to the angle driving motor, and then the forward/backward driving motor is rotated in the storage direction.

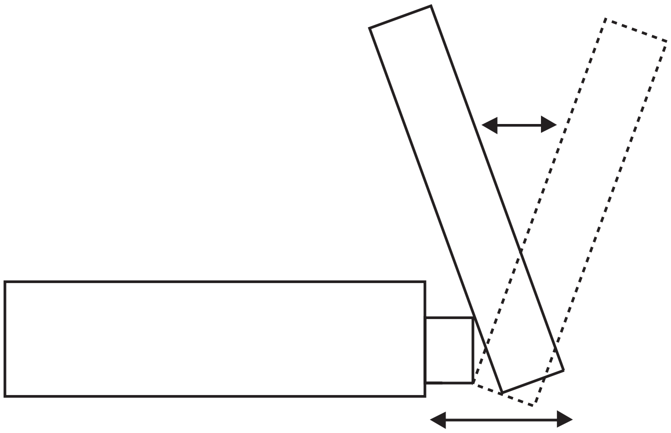


4. When the horizontal motion detection pulse is no longer detected for 200ms, brake is applied and the monitor storage motion is completed.



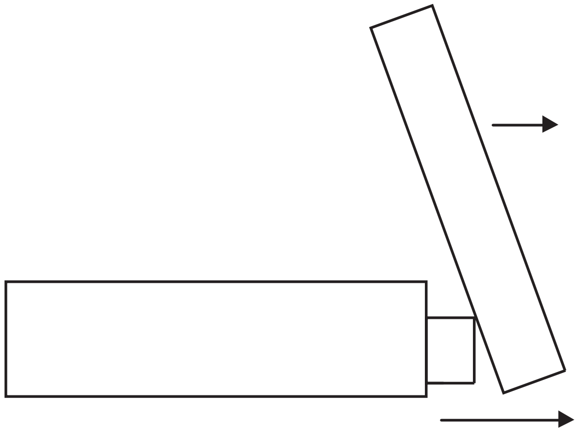
● Explanation on the FLAP angle adjustment

1. The angle driving motor is rotated in UP direction by the "+" key and in DOWN direction by the "–" key from the monitor stop position. If the key is kept pressed, the monitor will keep changing the angle without steps within the range of 50 to 110 degrees. When the setback is being set to ON, the forward/backward driving motor is rotated in the horizontal ejection direction while the key is being pressed, and angle adjustment is made by changing the angle voltage to the extent the angle adjustment key is effective after 600ms has elapsed from the time when LIFTSW has switched from H to L. When 3 seconds have elapsed from the time of angle adjustment completion, the forward/backward driving motor is rotated in slow speed in the horizontal storage direction, and brake is applied when LIFTSW has switched from L to H.

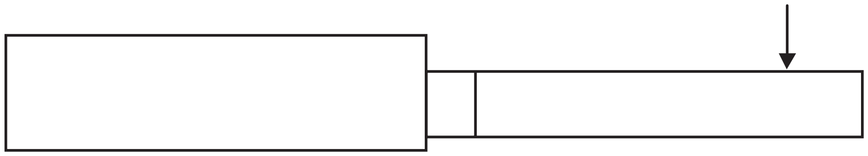


● Explanation on the FLAP temporary folding operation

1. By pressing the temporary folding key, the angle driving motor is rotated from the monitor stop position toward 0° direction. When the setback is being set to ON, the forward/backward driving motor is rotated when the key is pressed, brake is applied after 600ms has elapsed from the time when LIFTSW has switched from H to L, and the angle driving motor is rotated in 0° direction.



2. For a period of 500ms after DEGOSW has switched from H to L, the angle driving motor is rotated, and the monitor stops at its horizontal position by the brake. After 7 seconds, navigator operation sound is heard three times in 1 second interval. After 10 seconds, the angle driving motor is rotated in UP direction, and then the brake is applied to stop the motor at the last memory position. When the setback is being set to ON, after the angle driving motor stops at the last memory position, the forward/backward driving motor is rotated in slow speed in the horizontal storage direction, and the motor stops after LIFTSW has switched from L to H.



● Notes related to the FLAP motion

1. Regarding the angle position, angle voltage is always checked, and the last memory is stored by addition or subtraction of the voltage. It should be noted, however, that the last memory will not be stored when the monitor is manually moved by force.
2. If the expected pulse is not detected during horizontal motion, the monitor will stop at that position.

● Table of driving unit operations by different preset modes

		OPEN state	In OPEN motion	In CLOSE motion	CLOSE state
Auto OPEN/CLOSE setting ON	Bup ON (Reset start)	CLOSE state ↓ CLOSE ↓ OPEN state ↓ Last angle	—	—	Continue OPEN motion ↓ Last angle
	Bup OFF	To stand-by	To stand-by	To stand-by	To stand-by
	Bup OFF → ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC ON	No state change	—	—	OPEN motion ↓ Last angle ↓ Return
	ACC OFF → ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC OFF	6 sec from ACC OFF ↓ Advance ↓ CLOSE motion ↓ CLOSE	Continue OPEN motion ↓ Last angle ↓ Return ↓ 6 sec from ACC OFF ↓ Advance ↓ CLOSE motion ↓ CLOSE	Continue CLOSE motion ↓ CLOSE	No state change
	Last memory	OPEN	OPEN	CLOSE	CLOSE
Auto OPEN/CLOSE setting OFF	Bup ON (Reset start)	—	—	—	—
	Bup OFF	To stand-by	To stand-by	To stand-by	To stand-by
	Bup OFF → ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC ON	No state change	—	—	No state change
	ACC OFF → ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC OFF	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	Last memory	OPEN	OPEN	CLOSE	CLOSE

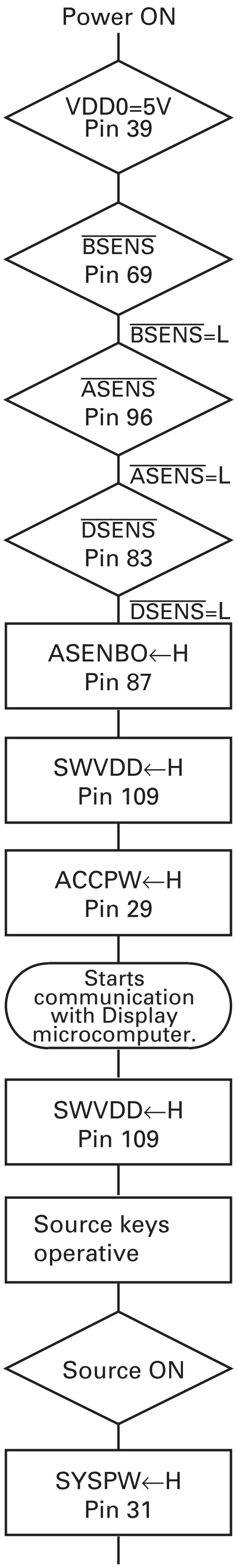
* When the setback is being set to OFF, there will be no advance/return motion.
After ACC OFF, if ACC is switched ON again during the 6 seconds counting, standby will be passed and the FLAP status will not change.

Table of temporary folding control

		Temporary folding state (horizontal position)	Temporary folding reset (horizontal position→last angle)	Temporary folding in motion (last angle→horizontal position)
Auto OPEN/CLOSE setting ON	Bup ON	———	———	———
	Bup OFF	To stand-by	To stand-by	To stand-by
	Bup OFF→ ON	Continue temporary folding motion	Continue OPEN motion ↓ Last angle ↓ Return	Continue temporary folding motion ↓ Temporary folding
	ACC ON	———	———	———
	ACC OFF→ ON	OPEN motion ↓ Last angle ↓ Return	Continue OPEN motion ↓ Last angle ↓ Return	Continue temporary folding motion ↓ Temporary folding
	ACC OFF	6 sec from ACC OFF ↓ CLOSE motion ↓ CLOSE	Continue OPEN motion ↓ Last angle ↓ Return ↓ 6 sec from ACC OFF ↓ Advance ↓ CLOSE motion ↓ CLOSE	Continue temporary folding motion ↓ Temporary folding ↓ 6 sec from ACC OFF ↓ CLOSE motion ↓ CLOSE
	Last memory	OPEN	OPEN	OPEN
Auto OPEN/CLOSE setting OFF	Bup ON	———	———	———
	Bup OFF	To stand-by	To stand-by	To stand-by
	Bup OFF→ ON	Continue temporary folding motion	Temporary folding reset	Temporary folding in motion
	ACC ON	———	———	———
	ACC OFF→ ON	OPEN motion ↓ Last angle ↓ Return	Continue OPEN motion ↓ Last angle ↓ Return	OPEN motion ↓ Last angle ↓ Return
	ACC OFF	OPEN motion ↓ Last angle ↓ Return	Continue OPEN motion ↓ Last angle ↓ Return	OPEN motion ↓ Last angle ↓ Return
	Last memory	OPEN	OPEN	OPEN

* When the setback is being set to OFF, there will be no advance/return motion.

7.3.2 OPERATIONAL FLOW CHART


Power ON
VDD0=5V
Pin 39
BSENS
Pin 69
BSENS=L
ASENS
Pin 96
ASENS=L
DSENS
Pin 83
DSENS=L
ASENBO←H
Pin 87
SWVDD←H
Pin 109
ACCPW←H
Pin 29
Starts communication with Display microcomputer.
SWVDD←H
Pin 109
Source keys operative
Source ON
SYSPW←H
Pin 31

Completes power-on operation.
(After that, proceed to each source operation)

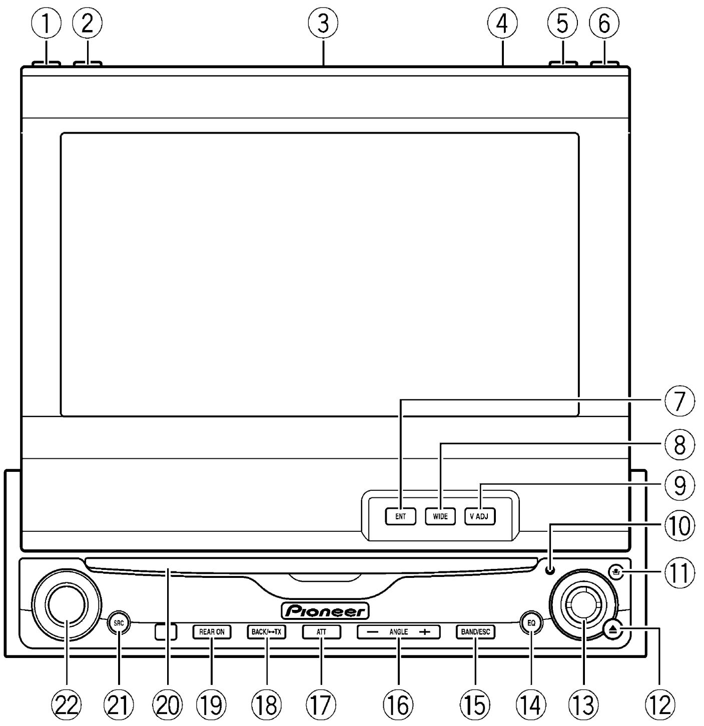
7.4 CLEANING

Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
DVD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

Portions to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

8. OPERATIONS



Head unit

① **DISPLAY button**
Press to select different displays.

② **PGM button**
Press to operate the preprogrammed functions for each source.

③ **Sub display**
Displays the basic information for the each source and the other settings when the LCD panel is closed.

④ **Ambient light sensor**
Senses ambient light. This system automatically adjusts the brightness of the display to compensate for ambient light.

⑤ **FLIP DOWN/CLOCK button**
Press to turn the LCD panel horizontal temporarily from upright position.

Press to turn the clock display on or off when the LCD panel is closed.

⑥ **OPEN/CLOSE button**
Press to open or close the LCD panel.

⑦ **ENTERTAINMENT button**
Press to switch between the background displays.

⑧ **WIDE button**
Press to select a desired mode for enlarging a 4:3 picture to a 16:9 one.

⑨ **V.ADJ button**
Press and hold to display the picture adjustment menu.

⑩ **RESET button**
Press to return to the factory settings (initial settings).

⑪ **DETACH button**
Press to remove the front panel from the head unit.

⑫ **EJECT button**
Press to eject a disc from this unit.

⑬ **Joystick**
Move to do manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions.

⑭ **EQ button**
Press to select various equalizer curves.

⑮ **BAND/ESC button**
Press to select among three FM bands and one AM band and to cancel the control mode of functions.

⑯ **ANGLE (+/–) button**
Press to change the LCD panel angle.

⑰ **ATT button**
Press to quickly lower the volume level, by about 90%. Press once more to return to the original volume level.

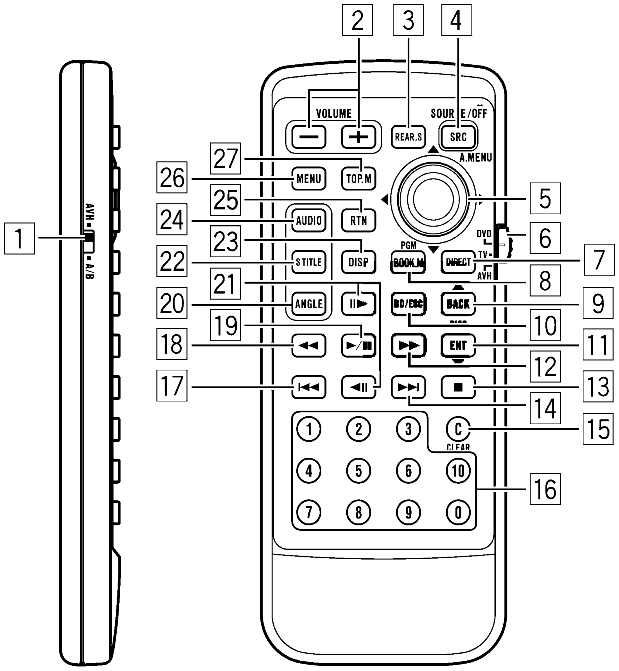
⑱ **BACK/TEXT button**
Press to return to the previous display.

⑲ **REAR ON button**
Press to watch a DVD/Video CD on a rear display if **DVD** (built-in DVD player) is not selected as the source.

⑳ **Disc loading slot**
Insert a disc to play.

㉑ **SOURCE button**
This unit is turned on by selecting a source. Press to cycle through all the available sources.

㉒ **VOLUME**
Rotate it to increase or decrease the volume. ▣



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27
VOLUME
SOURCE/OFF
REAR.S
SRC
A.MENU
MENU
TOP.M
AUDIO
RTN
S.TITLE
DISP
PGM
BOOK.M
DIRECT
DVD
TV
AVH
ANGLE
BACK
ENT
C
CLEAR
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3
4
5
6
10
7
8
9
0
AVH
A/B

Remote control

1 Remote control selection switch

Switch to change the setting of the remote control.

2 VOLUME buttons

Press to increase or decrease the volume.

3 REAR.S button

Press to watch a DVD/Video CD on a rear display if **DVD** (built-in DVD player) is not selected as the source.

4 SOURCE button

This unit is turned on by selecting a source. Press to cycle through all the available sources.

5 Joystick

Move to do manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions.

6 Remote control operation mode switch

Switch the operation mode between **AVH**, **DVD** and **TV** modes. Normally, set to **AVH**.

- **AVH** – For common operation of this unit
- **DVD** – Only for DVD player operation
- **TV** – Only for TV tuner operation

7 DIRECT button

Press to do direct channel select when using an XM tuner.

8 BOOKMARK (BOOK.M) button

AVH mode

Press to operate the preprogrammed functions for each source.

DVD mode

Press to turn the bookmark function on or off.

⑨ **BACK button**
Press to return to the previous display.

⑩ **BAND/ESC button**
Press to select among three FM bands and one AM band and to cancel the control mode of functions.

⑪ **ENTERTAINMENT button**
Press to switch between the background displays.

⑫ **FORWARD (▶▶) button**
Press to perform fast forward.

⑬ **STOP (■) button**
Press to stop playback.

⑭ **NEXT (▶▶|) button**
Press to go to the next track (chapter).

⑮ **CLEAR button**
Press to cancel the input number when **0–10** are used.

⑯ **0–10 buttons**
Press to directly select the desired track, preset tuning or disc. Buttons **1–6** can operate the preset tuning for the tuner or disc number search for the multi-CD player.

⑰ **PREVIOUS (|◀◀) button**
Press to return to the previous track (chapter).

⑱ **REVERSE (◀◀) button**
Press to perform fast reverse.

⑲ **PLAY/PAUSE (▶/II) button**
Press to switch sequentially between playback and pause.

⑳ **ANGLE button**
Press to change the viewing angle during DVD playback.

㉑ **STEP (II▶/◀II) button**
Press to move ahead one frame at a time during DVD/VideoCD playback. Press and hold for one second to activate slow playback.

㉒ **SUBTITLE (S.TITLE) button**
Press to change the subtitle language during DVD playback.

㉓ **DISPLAY button**
Press to select different displays.

㉔ **AUDIO button**
Press to change the audio language during DVD playback.

㉕ **RETURN button**
Press to display the PBC (playback control) menu during PBC playback.

㉖ **MENU button**
Press to display the DVD menu during DVD playback.

㉗ **TOP MENU (TOP.M) button**
Press to return to the top menu during DVD playback.

Using the remote control operation mode switch

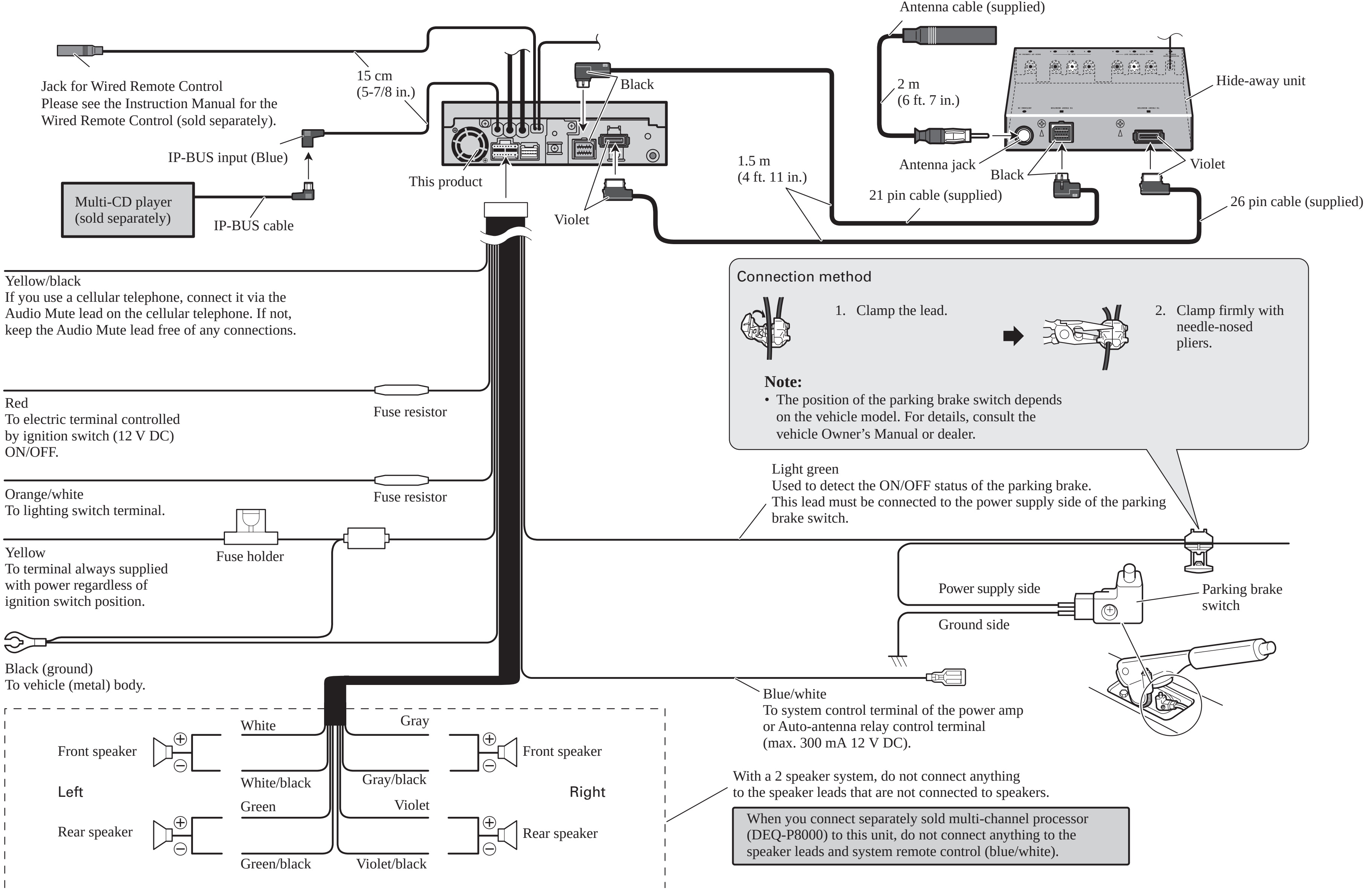
There are three remote control operation modes on the remote control.

AVH mode operation

When operating this unit by remote control, the mode is normally switched to **AVH**.

- The joystick on the remote control can perform the same operations as the one on the head unit. Furthermore, the joystick can perform the same operations as the touch panel keys ▲, ▼, ◀ and ▶.

CONNECTION DIAGRAM


Antenna cable (supplied)
Hide-away unit
2 m
(6 ft. 7 in.)
Antenna jack
Black
Violet
21 pin cable (supplied)
26 pin cable (supplied)
1.5 m
(4 ft. 11 in.)
Black
Violet
This product
15 cm
(5-7/8 in.)
IP-BUS input (Blue)
Multi-CD player
(sold separately)
IP-BUS cable
Fuse resistor
Fuse resistor
Fuse holder
Parking brake switch
Power supply side
Ground side
White
White/black
Green
Green/black
Gray
Gray/black
Violet
Violet/black
Front speaker
Rear speaker
Left
Right
Front speaker
Rear speaker

Jack for Wired Remote Control
Please see the Instruction Manual for the Wired Remote Control (sold separately).

Yellow/black
If you use a cellular telephone, connect it via the Audio Mute lead on the cellular telephone. If not, keep the Audio Mute lead free of any connections.

Red
To electric terminal controlled by ignition switch (12 V DC) ON/OFF.

Orange/white
To lighting switch terminal.

Yellow
To terminal always supplied with power regardless of ignition switch position.

Black (ground)
To vehicle (metal) body.

Connection method

1. Clamp the lead.
2. Clamp firmly with needle-nosed pliers.

Note:
- The position of the parking brake switch depends on the vehicle model. For details, consult the vehicle Owner’s Manual or dealer.

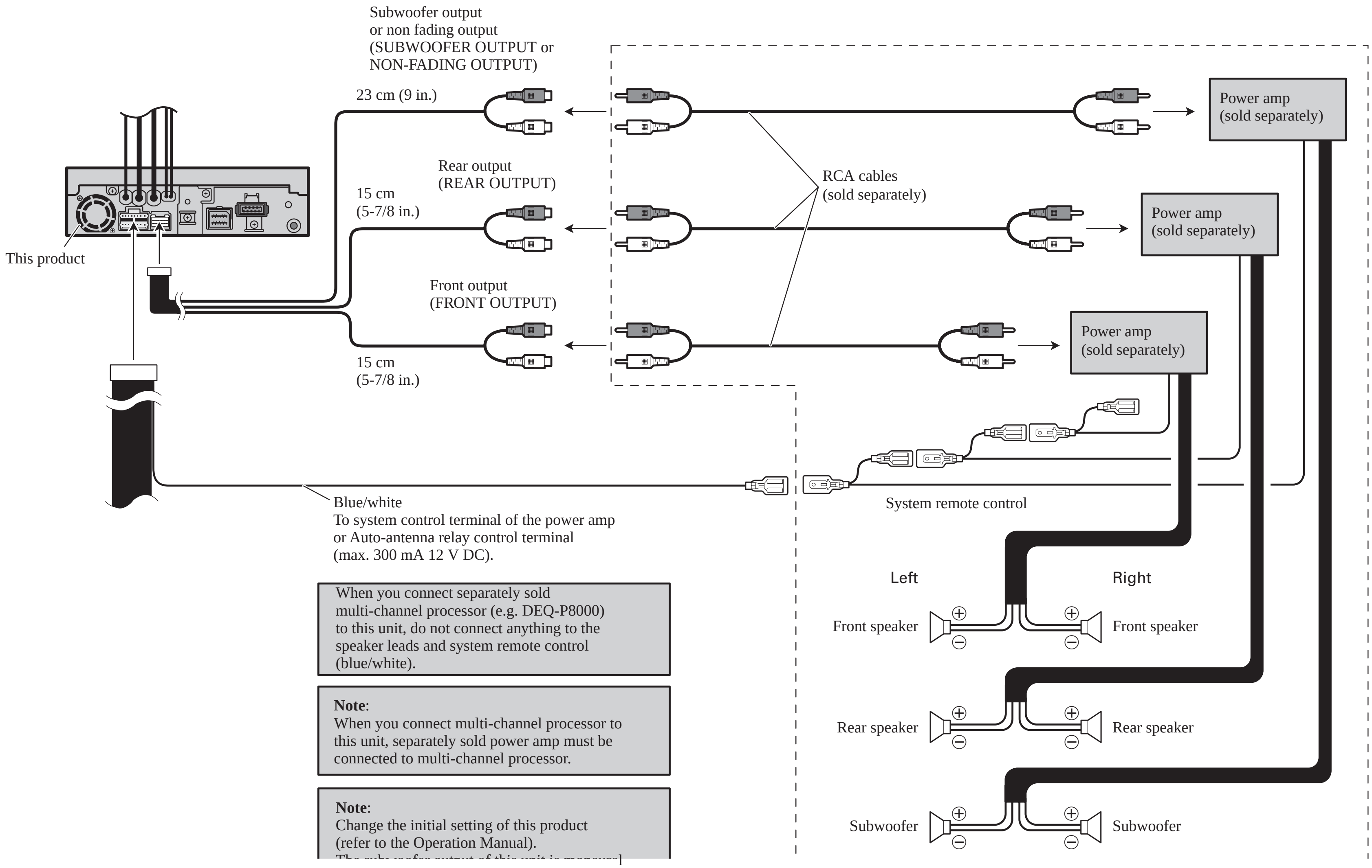
Light green
Used to detect the ON/OFF status of the parking brake.
This lead must be connected to the power supply side of the parking brake switch.

Blue/white
To system control terminal of the power amp or Auto-antenna relay control terminal
(max. 300 mA 12 V DC).

With a 2 speaker system, do not connect anything to the speaker leads that are not connected to speakers.

When you connect separately sold multi-channel processor (DEQ-P8000) to this unit, do not connect anything to the speaker leads and system remote control (blue/white).

● CONNECTION DIAGRAM


Subwoofer output
or non fading output
(SUBWOOFER OUTPUT or
NON-FADING OUTPUT)
23 cm (9 in.)
Rear output
(REAR OUTPUT)
15 cm
(5-7/8 in.)
Front output
(FRONT OUTPUT)
15 cm
(5-7/8 in.)
This product
RCA cables
(sold separately)
Power amp
(sold separately)
Power amp
(sold separately)
Power amp
(sold separately)
Blue/white
To system control terminal of the power amp
or Auto-antenna relay control terminal
(max. 300 mA 12 V DC).
System remote control
Left
Right
Front speaker
Front speaker
Rear speaker
Rear speaker
Subwoofer
Subwoofer

When you connect separately sold multi-channel processor (e.g. DEQ-P8000) to this unit, do not connect anything to the speaker leads and system remote control (blue/white).

Note:
When you connect multi-channel processor to this unit, separately sold power amp must be connected to multi-channel processor.

Note:
Change the initial setting of this product (refer to the Operation Manual).
The subwoofer output of this unit is monaural

● Jigs list

Disc : GGV1018
Cleaning liquid : GEM1004
Cleaning paper : GED-008

Function Name		Jig No.
Mother PCB(CN501) <-> Main Unit(CN3801)	PCB	GGF1471
Mother PCB(CN501) <-> GGF1471	50P FFC	GGD1250
Mother PCB(CN502) <-> GGF1471	24P FFC	GGD1337
Mother PCB(CN501,CN502) <-> Monitor PCB(CN4461,CN4481)	PCB	GGF1472
Monitor PCB(CN4461) <-> GGF1472	33P FFC	GGD1262
Monitor PCB(CN4481) <-> GGF1472	24P FFC	GGD1337
Mother PCB(CN601) <-> Panel PCB(CN5901)	17PFFC	GGD1124